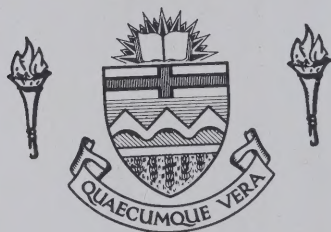


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MORAL DEVELOPMENT AND PERSONAL GROWTH:

A CASE STUDY OF ROSTHERN

JUNIOR COLLEGE

by



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A THESIS

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DEDICATION TO CHARLIE BROWN



You're a good man, Charlie Brown! You have humility, nobility and a sense of honor that is very rare indeed. You are kind to all the animals and every little bird. With a heart of gold, you believe what you're told, every single word. You bravely face adversity; you're cheerful through the day; you're thoughtful, brave and courteous. You're a good man, Charlie Brown! You're a prince, and a prince could be a king. With a heart such as yours you could open any door-- if only you weren't so wishy-washy.

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ABSTRACT

Senior High School students are approaching the age at which they are expected to assume adult roles and responsibilities; in terms of the democratic society this involves a sharing equally in privileges, duties, and responsibilities. The purpose of this study was to identify, in a student population where personal involvement and responsibility are encouraged, the extent to which students have developed and are using their own internal principles for application to conflict situations. If students do not possess an inner core of principles to which they, as active citizens in a democratic society, can appeal to in decision-making, then the challenge remains for institutions, like the school and the church, to re-evaluate their methods of teaching values, and what values are actually being taught.

In order to identify moral development patterns and personal maturity at the Senior High School level, a case study was done in a private residential high school, which emphasizes value development and personal development.

The Kohlberg Moral Development Scale, the Personal Orientation Inventory, the Situational Appraisal Inventory, and a prepared questionnaire were personally administered to 77 Grade 11 and 12 students at Rosthern Junior College.

The data were analyzed by analyses of variance, factor analysis, comparisons of means and correlations, and

wherever possible results were compared with published norms. The following general conclusions were made on the basis of the results:

1. 88.1% of the students function at Level II of Kohlberg's Moral Development hierarchy, suggesting that approval of others and maintenance of the social order are important factors in solving moral issues.
2. Since the variation scores were relatively small, there is considerable support for the conclusion that these students are fairly stabilized in their level of development: Level II.
3. Participants in extracurricular activities, particularly those of a social nature, made significantly greater use of the higher stages of moral judgement.
4. Senior students at Rosthern Junior College scored below the norm mean in terms of having developed their own personal core of basic principles. Comparable to the high school norm published, these students are dependent, and seek the support of others' views.
5. Students were particularly severe in their evaluation of deviance from the accepted norms in sexual behavior, and of individuals working for personal gain at the expense of other people.
6. It was significant that the more students' behaviors were influenced by thoughts of God, the higher their scores were in Other-Directedness.

Therefore it can be concluded that students in this high school are very much aware of the approval and needs of others when they are faced with making moral decisions. This (and other findings) has important implications for curriculum development in this high school.

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CHAPTER 1

Mature problem-solving is an ideal advocated in our democratic society. Our public school systems aim to produce mentally healthy and mature citizens: citizens who can function as free, autonomous individuals, who can apply mature problem-solving techniques in conflict situations, who believe in the maintenance of, and respect for, individual rights. There are a variety of areas in which mature problem-solving is important, one area being that of morality. Morality is emphasized in the school program; Social Studies devotes definite areas to the study of values and value development. Increasing attention is being given to the processes of moral reasoning, rather than just looking for the actual desired behaviours, i.e., moral posture.

Morality is particularly emphasized in a private high school operated by the General Conference Mennonite Churches primarily in Saskatchewan and Alberta. Students who attend Rosthern Junior College agree to abide by the regulations of this school. It is assumed that parents who send their children to this private school adhere to the intent of the objectives of the school.

One objective of this school is to provide an environment for students to participate in searching, choosing, developing and practising values which demonstrate the Christian way of life. It is of interest whether

students in a school that particularly emphasizes the importance of value development, the necessity of extensive social interaction, the need for personal character development, and the importance of practising responsibility to others, will show evidence of mature problem-solving abilities in issues related to values. Several questions can, and will, be asked:

1. At what level are students, with a unique background, functioning in the area of problem-solving in moral situations? Levels of moral development postulated by Kohlberg will be specifically referred to. These are:
 - (a) the pre-conventional level, where rightness or wrongness of action is determined mainly by the physical consequences to the self,
 - (b) the conventional level, where the rightness or wrongness of an action is already established by a group, and the emphasis is on obedience, and
 - (c) the principled level, where the rightness or wrongness of action is considered in terms of ethical principles that consider the rights of all the individuals involved.
2. To what degree do levels of moral development appear to be fixed as opposed to developing and evolving?
3. What levels of development have students attained in developing their own internal principles?

4. What is the degree of severity with which specific moral situations are evaluated by these students?

The specific discussions emphasizing values, the numerous social situations that are part of residence life, and the stimulating academic environment of Rosthern Junior College give these students ample opportunity to "weigh the justice of alternative courses of action or of varying conclusions open to him (The Report of the Committee on Religious Education in the Public Schools of the Province of Ontario, 1969, p. 49)."

Since the instruments used to identify moral development patterns and personal maturity are administered to a fairly homogeneous population, reference will be made in this study to several other studies done on the values and attitudes of Mennonites. These findings on this unique socio-ethnic religious group will probably have some influence on the interpretations of the findings in this study. The results of this study will be compared with published norms in moral development, self-actualization, and evaluation of specific moral situations.

The focus of the following chapter will be to clarify the terms "maturity, moral development, and inner-directedness", and this clarification will be based directly on two primary theoretical positions: that of Kohlberg on moral development and that of Maslow and Shostrom on inner-directedness. Together with this will be a description of the population, and the particular goals and aims of the school.

CHAPTER 2

THEORETICAL FRAMEWORK

Part I--Introduction to the Private School

The private school under consideration in this study was established in 1905 and has expanded to a present student body of some 140 students in Senior High School. The purpose of the school is summarized in their policy manual: "We need our school if we wish to retain our identity as a Christian Mennonite people (Policy Manual, p. 5)." A serious study of the Christian faith, a definite value system, and the uniqueness of Mennonitism is considered an important part of preparing young people to lead full and worthwhile lives.

This residential school, located in a town of about 1,500 residents, offers a university entrance program, an extensive athletic program, fine and graphic arts courses, a music program, a drama program, plus several courses in religion. The objectives of the institution are stressed:

1. An environment for students to participate in searching, choosing, developing and practising values which demonstrate the Christian way of life.
2. An opportunity for students to participate in wholesome social, cultural and athletic activities.
3. An opportunity for students to obtain a high school education in a provincially recognized school.

4. An opportunity for students to develop friendships with others holding like values.
5. An opportunity for students to practice responsibility to others through residential school life.
6. An opportunity for students to participate in service activities related to their school, church and community.

Students attending the school must be in sympathy with the objectives of the school, be willing to co-operate in all aspects of the school program, meet the academic, social, and moral standards set by the school, indicate financial support (approximately \$950.00 per year), and be subject to the discipline of the school.

Part II--Moral Development

Kohlberg: Kohlberg (1964, 1966) defines a morally mature person as that person who is capable of making decisions and judgments based on personally accepted internal principles of justice, equality, and respect for human life, and, who acts in accordance with such judgments. Through extensive case analyses of interviews, using stories of moral dilemmas, Kohlberg (1968a) developed a 6-stage cognitive-developmental typology which represents a sequence all people move through in the same order.

Each step of development then is a better cognitive organization than the one before it, one which takes account of everything present in the previous stage, but

making new distinctions and organizing them into a more comprehensive or more equilibrated structure (Kohlberg, 1968a, p. 186).

In order for this developmental process of increasing differentiation and integration to occur, the individual must be involved in role-taking. Kohlberg (1963a) discovered in the age trends in his group that large groups of moral concepts and ways of thinking in regards to moral dilemmas only attain meaning at successively advanced ages, really requiring the extensive background of social experience and cognitive growth.

As already alluded to, Kohlberg (1968b) stressed the role of intellectual advance, social participation, and role-taking opportunities in family, peer group, and secondary institutions in facilitating the development of moral judgment. The progressive movement toward basing moral judgment on concepts of justice involves increasing ability to react to others as someone like the self and to react to the self's behavior in the role of the other (Kohlberg, 1963a).

Kohlberg groups and summarizes this development as follows:

Definition of moral stages

I. Preconventional Level

At this level the child is responsive to cultural rules and labels of good and bad, right and wrong, but interprets these labels in terms of either the physical or the hedonistic consequences of action (punishment, rewards, exchange of favors) or in terms of the physical power of those who enunciate the rules and labels. The level is divided into the following two stages:

Stage 1: The punishment and obedience orientation.
The physical consequences of action determine its goodness or badness regardless of the human meaning or value

of these consequences. Avoidance of punishment and unquestioning deference to power are valued in their own right, not in terms of respect for an underlying moral order supported by punishment and authority (the latter being Stage 4).

Stage 2: The instrumental relativist orientation. Right action consists of that which instrumentally satisfies one's own needs and occasionally the needs of others. Human relations are viewed in terms like those of the market place. Elements of fairness, of reciprocity and equal sharing are present, but they are always interpreted in a physical pragmatic way. Reciprocity is a matter of 'you scratch my back and I'll scratch yours', not of loyalty, gratitude or justice.

II. Conventional Level

At this level, maintaining the expectations of the individual's family, group, or nation is perceived as valuable in its own right, regardless of immediate and obvious consequences. The attitude is not only one of conformity to personal expectations and social order, but of loyalty to it, of actively maintaining, supporting, and justifying the order and of identifying with the persons or group involved in it. At this level, there are the following two stages:

Stage 3: The interpersonal concordance or 'good boy--nice girl' orientation. Good behavior is that which pleases or helps others and is approved by them. There is much conformity to stereotypical images of what is majority or 'natural' behavior. Behavior is frequently judged by intention--'he means well' becomes important for the first time. One earns approval by being 'nice'.

Stage 4: The 'law and order' orientation. There is orientation toward authority, fixed rules, and the maintenance of the social order. Right behavior consists of doing one's duty, showing respect for authority and maintaining the given social order for its own sake.

III. Post-Conventional, Autonomous, or Principled Level.

At this level, there is a clear effort to define moral values and principles which have validity and application apart from the authority of the groups or persons holding these principles and apart from the individual's own identification with these groups. This level again has two stages:

Stage 5: The social-contract legalistic orientation generally with utilitarian overtones. Right action tends to be defined in terms of general individual rights and in terms of standards which have been critically examined and agreed upon by the whole society. There is a clear awareness of the relativism of personal values and opinions and a corresponding emphasis upon procedural

rules for reaching consensus. Aside from what is constitutionally and democratically agreed upon, the right is a matter of personal 'values' and 'opinion'. The result is an emphasis upon the 'legal point of view', but with an emphasis upon the possibility of changing law in terms of rational considerations of social utility, (rather than freezing it in terms of Stage 4 'law and order'). Outside the legal realm, free agreement, and contract is the binding element of obligation. This is the 'official' morality of the American government and Constitution.

Stage 6: The universal ethical principle orientation. Right is defined by the decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality, and consistency. These principles are abstract and ethical, (the Golden Rule, the categorical imperative) they are not concrete moral rules like the Ten Commandments. At heart, these are universal principles of justice of the reciprocity and equality of the human rights and of respect for the dignity of human beings as individual persons (Kohlberg and Kramer, 1969, pp. 100-101).

According to Kohlberg (1971) many social situations are not 'moral' situations; Kohlberg explains that one can only correctly speak of morality when there is a conflict between competing claims of men. It is the mode of role-taking in such a conflict situation that will represent one or more of the above structures of moral judgment. Kohlberg (1963b) states that the mere process of role-taking the attitude of others in organized social interaction transforms concepts of rules from external things to internal principles. The author feels that students in a residential senior high school would have a unique opportunity to interact in a variety of situations.

Turiel: The question of how a child moves from one stage to the next is discussed extensively by Turiel (1966,

1969, 1972). He found in his studies that very few people answered Kohlberg's moral dilemma situations with one "pure stage" approach. People tended to respond at one dominant level, but they also used reasoning from the level below and one level above. Turiel (1969) was particularly interested in the amount of variation in each subject, the function that this variation served in the developmental process, and at what levels this variation tended to be particularly high.

When children are in the years of relatively rapid development through the lower stages, mixture--which is necessary for change to occur--increases substantially. Those who do not advance to higher stages begin to stabilize at the lower stages after the period of transition . . . (Turiel, 1969, p. 125).

Turiel noted that change can only occur when there are perceived contradictions, so the individual is forced to explore a higher mode of thought to resolve the contradiction adequately. In further experiments it was discovered that conflict could be introduced into the subject's thinking by presenting arguments, either pro or con, just one level above the subject's level. It is this mixture of stages that is necessary for growth. Turiel explains:

Stage mixture serves to facilitate the perception of contradictions, making the individual more susceptible to disequilibrium and consequently more likely to progress developmentally (Turiel, 1969, p. 130).

During childhood and adolescent years, which usually involve fairly rapid change, we do not expect that much stability. Turiel found that this was reflected in the variation score. In contrast, when subjects were fixated at

a less equilibrated stage, or had reached stable equilibrated functioning, their variation score was significantly lower. This "variation score" is computed for each subject by multiplying the percentage of his responses on a stage by the number of stages separating that stage from the modal stage and then summing these products (Turiel, 1969).

At the conclusion of his study Turiel (1969) reported that children in rural, isolated societies show less stage mixture and slower development through the moral stages than do children from American cities. He further speculated that a complex heterogeneous environment probably facilitated moral development because of the variety of contradictions not available in a homogeneous environment. It would seem likely that the population in this study, in view of this observation, would probably have a lower variation score than Turiel's city example.

Pittel: In contrast to Kohlberg, whose concern was predominantly with the thought structure behind the content of moral responses, Pittel and Mendelsohn (1969) were interested in obtaining a measure of the strength and patterning of subjective attitudes of evaluation. The Situational Appraisal Inventory (SAI) was designed "to serve as a measure of moral or evaluative attitudes in a variety of content areas and to provide an overall index of severity of conscience or superego (Pittel and Mendelsohn, 1969, p. 396)." Nowhere in their report do Pittel and Mendelsohn

(1969) define what they consider to be a moral issue. However, they report that evaluative attitudes can be inferred from judgments of human conduct along the familiar dimension of "rightness-wrongness". In their study Pittel and Mendelsohn found that differences in the SAI scores were a function of sex, religiosity, and strength of parental identification. Since it appears that the degree of orthodox religiosity is definitely related to the severity of moral evaluation, this author anticipates a significantly higher mean score in her private school sample than the original authors obtained in their more heterogeneous samples. Also, it would seem to the author (since Pittel's definition of "moral" is only implied) that only the SAI items which involve competing claims of people would correlate significantly with the Kohlberg Moral Maturity Score (MMS).

Part III--Inner-Directedness

Reference has already been made to the interest psychologists have in the development and possession of internal values in individuals. Shostrom (1966) sees a value as an affectively loaded idea about life. Therefore, the way people feel about nature, about man's place in nature, and about man's relation to man, will influence their behavior.

What Shostrom perceives as an emotionally mature approach to life is "the tendency [of an individual] to develop and utilize his unique capabilities, or potentialities,

free of the inhibition and emotional turmoil of those less self-actualized (Shostrom, 1963, p. 5)." Only as a person feels positive about himself will he feel free to follow the directions of his internalized principles and motivations. In contrast to this inner-directed personality, Shostrom sees the other-directed person as one who is controlled by social pressures and expectations, by the approval, affection, and good will of other people (Shostrom, 1963). If approval by others is the highest goal for him, it is quite probable that the inevitable consequence of not being able to get this approval will result in guilt, regrets, and resentments, and/or the unrealistic hope attached to future goals and ideals. Shostrom sees such a focus on the past or future as "Time Incompetence".

In order for a person to develop and use his potentialities he would, in Maslow's framework (adopted by Shostrom for the Personal Orientation Inventory--POI), have to possess the following characteristics: a realistic orientation, the accepting of self and others for what they are, spontaneity, autonomy and independence, fresh appreciation of people and things, democratic values and attitudes, a few profound intimate relationships, a great fund of creativeness, and a resistance to conformity to the culture.

Shostrom, in his Inventory, pays particular attention to the self-actualizing values and inner-directedness. In view of this emphasis on democratic values and the inner core of principles, it would seem that Shostrom's

self-actualizer would be similar to a person at Kohlberg's post-conventional level.

Part IV--Definitions

Moral Development: When reference is made to moral development in this study, one is referring to that progressive movement through which individuals learn to view conflicts not only from their point of view, but from a variety of perspectives, using some basic principles as their criteria. This implies learning to think in more integrated and cognitively complex terms so that the entire situation is considered, before a behavior is planned. The stages can be summarized as follows: first individuals will show only a concern for their own safety, and then move to being concerned about others, and then develop their personal ethical principles, which involve an underlying respect for human life and equality for all individuals. Operationally "moral development" will be defined as a score assigned by trained raters using Kohlberg's Global Rating Guide.

Self-actualization: Each man has a nature of his own, which includes needs, capacities, and tendencies. Healthy development consists of a growth from within, rather than a shaping from without; man's own nature suggests a way these potentialities can be fulfilled. A self-actualizing person will use his creative powers to come to terms with his present environment. Since different people have different

potentialities, each person will have his own unique development. The personal appreciation of this self and the recognition of one's own needs and abilities will influence one's emotional development. In this study "self-actualization" will be defined in terms of a score obtained on Shostrom's Personal Orientation Inventory.

Severity Of Judgment: There is no conceptual definition of this term. However, typical situations, that are viewed with different degrees of severity, are presented to allow for a comparison of what people view as "very wrong" to what they view as "quite O.K.". The Situational Appraisal Inventory is used to present such situations to the subjects, so they can compare their feelings of "rightness-wrongness" on an eight point scale.

CHAPTER 3

RESEARCH QUESTIONS

In the discussion of self-actualization and moral maturity there are several questions that deserve consideration.

1. How far have the senior high school students of Rosthern Junior College progressed in terms of Kohlberg's six distinct stages of moral development? At what level, in cognitive-developmental terms, do they resolve a conflict-temptation problem?
 - (a) To what extent, in this adolescent population attending a residential school, is moral behavior influenced by the need for group approval?
 - (b) Is there any significant correlation between the moral maturity level and whether a student is a participator in the school activities or not?
 - (c) Are there significant sex differences in moral maturity?
 - (d) How do senior students in this residential school compare with the published norms in moral maturity?
2. What is the typical profile of a senior student in this residential school in terms of self-actualization? To what degree are they inner-directed, guided by internal motivations that are based on an inner core of principles?

- (a) Are there significant sex differences in self-actualization?
 - (b) How do senior students in this residential school compare with the published norms in self-actualization?
3. In terms of evaluating human behaviours, do senior students at Rosthern Junior College reflect a certain characteristic level of severity? Is their level of severity related to particular types of behaviour-situations?
- (a) Are there significant sex differences in severity of evaluation of human behaviour?
 - (b) How do senior students in this residential school compare with the published norms in severity of evaluation?
4. Are there any correlations among one's generalized overall strength of evaluative attitudes, one's stage of development in value orientation (cognitive organization), and the level of inner-directedness?

As stated previously, a private residential school that emphasizes the importance of value development, extensive social interaction, character development, and sensitivity to others is a suitable setting for this descriptive study.

CHAPTER 4

RELATED RESEARCH, DESIGN, AND PROCEDURE

The Sample

Rosthern Junior College had 97 students registered in Grade 11 and 12 in 1971-72 at the time this study was undertaken. The entire population of these grades was included in the study. On the day of testing there were 11 students absent. Furthermore, nine students from Hong Kong, who were attending Rosthern Junior College this year, were not included in the study in order to retain the population unique to the school. Thus the population in this study consists of those 77 students who were in attendance and who typify the school. The average age was 17.12 years. Only about 20% of these students had not lived in residence at some time; since the school is situated in a town, it is relatively easy to live at home and still participate in the school functions.

The Research Instruments

Kohlberg Moral Development Scale: Kohlberg has used the moral dilemma situations in this instrument for some 15 years now, to study the development of moral judgment and character. Kohlberg followed a group of 75 boys from early adolescence through young manhood at three-year intervals. He also used these moral dilemmas to study moral judgment and character in several different cultures, including rural

and urban populations. Not only has he thus defined the six stages, but he has developed an extensive rating guide for each of the 10 moral dilemmas presented.

The shortened form of Kohlberg's Scale was used in this study (see Appendix A). Subjects were presented with five situations in which acts of obedience to legal-social rules or to the commands of authority conflict with the human needs or welfare of other individuals (Kohlberg, 1963a). Since the stories do not have a culturally correct answer, moral reasoning, rather than moral knowledge, is used to answer the questions.

The reasons recorded by the subjects can then be scored by trained raters, using Kohlberg's Global Rating Guide for rating each total response to a given situation as belonging to one of the six developmental levels.

Turiel (1966) tested two developmental propositions of Kohlberg's theory of moral judgments. He found that more learning resulted from exposure to a stage directly above one's level than exposure to stages further above; this supports Kohlberg's proposition of the invariant sequence. Turiel also found that more learning resulted from exposure to the stage directly above one's level than exposure to the stage directly below. This experiment used 44 seventh-grade boys from the New Haven public schools.

Keasey (1971) used 75 boys and 69 girls from four sixth grades and one fifth grade to test the hypothesis that

higher stages of moral development are associated with greater social participation. Keasey found that children who were quite popular and/or leaders, whether judged by the subject, his peers, or his teachers, were at higher stages of development than children not occupying such positions. This is consistent with Kohlberg's suggestion that the quality of social participation enhances role-taking opportunities, which in turn facilitates moral development.

Tapp and Kohlberg (1971) used a U.S. kindergarten to college sample and some cross-national preadolescent data to study the development of individual orientation towards legal and rule systems. They found a "consistent movement from a preconventional law-obeying, to a conventional law-maintaining, to a postconventional law-making perspective (Tapp and Kohlberg, 1971, p. 65)." The data appeared to confirm that the conventional mode was the typical societal level, and that only a small minority moved to Level III. The ease with which legal development could be compared with Kohlberg's model of moral development, offers support to the validity of the Kohlberg Moral Development Scale.

Fodor (1971) used 25 Negro males and 27 white males, ages 14 - 17, to investigate whether the subjects more advanced in moral development would not tend to resist, more successfully, efforts to make them reverse their moral decisions. He found that Resisters received a mean Moral Judgment score of 210 with a SD of 31, while Yielders received a

mean of 181 with a SD of 27. This was a significant difference at the .01 level. In this study Fodor obtained a product moment correlation of .85 as an index of interrater reliability. This compares to a .94 correlation obtained by Turiel (1966) when he used 17 subjects to estimate the reliability of Kohlberg's detailed coding system. Fodor concluded that his finding of Resisters receiving substantially higher Moral Judgment scores, as rated by 2 assistants showing high agreement, contributes to the validity of Kohlberg's schema of moral development.

Turiel (1972) found, by exposing 43 seventh-and eighth-grade boys to reasoning at a stage above their own and at a stage below their own, that where reasoning did affect changes in behavior (the experimental condition required subjects to choose between two actions), it was reasoning at one stage above their own rather than the stage below. This finding gives support to the idea of sequential development in reasoning and behavior.

Rest (1973) found, by using 47 high school seniors, that about half his subjects comprehended moral statements as high as the stage they spontaneously used on a previously-administered Kohlberg interview. The other half showed comprehension of one stage higher. Rest also found, by presenting subjects with a list of statements representing the different stages, that there was a consistent preference for higher stage statements. Such a finding supports the

cognitive-developmental theory of a hierarchy of stages.

In summary, the preceding evidence for the validity and reliability of the Kohlberg Moral Development Scale supports the use of this scale in the study of moral development in Rosthern Junior College.

Personal Orientation Inventory. Shostrom created this instrument to provide for a "comprehensive measure of values and behavior seen to be of importance in the development of self-actualization (Shostrom, 1963, p. 5)."

This self-report inventory consists of 150 two-choice items, the two items specifying opposite forms of behavior or value judgments (see Appendix B). One basic scale, inner-direction, consists of 127 items. Time competence, the second basic scale, is measured by the remaining 23 items. Time Competence, a ratio reflecting competence in proportion to incompetence, assesses the effective use of time in the present, which involves realistic integration of past experience with future goals. Inner-Direction, a ratio reflecting independence in proportion to dependence, measures relative autonomy, which is a balance between other-directedness and inner directedness. The items are then scored for the second time; the ten subscales used identify aspects of the self-actualizing person: self-actualization values (SAV), existentiality (Ex), feeling reactivity (Fr), spontaneity (S), self-regard (Sr), self-acceptance (Sa), synergy, or the ability to transcend dichotomies (Sy), the

degree of the constructive view of the nature of man (Nc), acceptance of aggression (A), and the capacity for intimate contact (C). Scoring keys are available for each of these scales.

Irlardi and May (1968) presented test-retest correlations for the twelve scales of the POI, based upon forty-six nursing students. The test-retest interval was one year. The correlations ranged from .71 for Inner-Directedness and Self-Acceptance to .32 for Feeling Reactivity. Klavetter and Mogar (1967) administered the Inventory to 48 subjects, and repeated the administration one week later. The reported reliability coefficients ranged from .55 to .85, with the two major scales Time Competence and Inner-Direction yielding coefficients of .71 and .84, respectively.

Several validity studies on the POI have been reported. Shostrom (1964) found that all except one scale (Nature of Man) significantly discriminated between clinically judged self-actualized and non-self-actualized groups. In 1965 Knapp discovered that 8 of the 12 scales correlated significantly negatively with the neuroticism dimension of Eysenck's Personality Inventory. Shostrom and Knapp (1966) used the POI and the MMPI to study two groups of clients in psychotherapy: a beginning and an advanced group. The advanced therapy group scored significantly higher at the .01 level for all twelve scales.

The fact that the POI was constructed from value

judgment problems makes it a valuable instrument in the study of personal values in the author's high school population.

Situational Appraisal Inventory. The Situational Appraisal Inventory was designed to measure moral or evaluative attitudes in a variety of content areas. This then provided an "overall index of severity of conscience or superego" (Pittel & Mendelsohn, 1969, p. 396)."

The scale consists of 30 items (chosen on the basis of cluster analyses from SAI-A and SAI-B forms which had 100 items each) dealing with sexual behavior, prejudice, coercion by force, physical aggression, behaviors which are either directly or indirectly injurious to one's personal well-being, authority relationships, and interpersonal honesty. The items describe the behavior of a fictitious character in a number of situations; the act is described in a context, which suggests that it is a violation of a moral code under extenuating or justifying circumstances. The subject is asked to rate the degree of "wrongness" on an 8-point scale ranging from "not wrong" to "extremely wrong". The total score of the SAI is obtained by summing the responses to each of the items (see Appendix C).

Pittel found a split-half reliability of .96 for SAI-A and .97 for SAI-B. Eleven items in Form A were repeated, and Pittel found that the correlations between first and second ratings ranged from .76 to .92. In a test-retest study, with an interval of two weeks, the median

reliability for males was .77, and .71 for females on the SAI-A form. Pittel then administered the SAI-A form to 43 females, followed two weeks later by the SAI-B form. The total score correlation for the two forms was .89. The mean ratings for the 30 selected items taken from the original standardization data correlated .94 with mean ratings for SAI-J items obtained from a sample of 88 males and females who answered only the short form.

Very little work has been done with these scales in terms of the validation of this instrument. Pittel (1969) states that

. . . its face validity may be estimated by considering the representativeness of its item content . . . the items do cover an extensive range of behaviors considered to be morally relevant by college students . . . The cluster dimensions include the types of behaviors tapped by other measures of this sort . . .

Pittel states that the scale does measure individual differences (in terms of sex, religion, parental identification) in the strength of evaluative attitudes.

General Information Sheet. A brief questionnaire was constructed by the author to include information on variables such as age, sex, length of stay in residence, religious affiliation, participation in extra-curricular activities, grade average (the students gave an estimate of their own), and grade enrolled in (see Appendix D).

Administration of the Tests

The length of time required to complete the Inventories was approximately two hours. Students had previously

indicated their willingness to participate in this descriptive study. Provision was made so that the author could administer the entire set of Inventories at one sitting on May 18, 1972. Instructions were given to all subjects simultaneously over the school PA system by the author. Since each Inventory had clear brief instructions on the first page, the subjects were just briefly informed that this was a study of values held by Senior High School students. Students were instructed to complete the Inventories in the following order: Situational Appraisal Inventory, Personal Orientation Inventory, the Kohlberg Moral Development Scale, and the General Information Sheet. Identification numbers were assigned in order to guarantee anonymity. It must be noted that at least 50% of the group signed their names because they were interested in receiving personal feedback.

Limitations

Several factors do influence the conclusions that can be drawn from this study.

1. It is possible that the order of the Inventories may have had some influence on the responses. However, as noted above, each subject did the Inventories in the same order.
2. There may be a slight difference in some scores if the 11 absent subjects had filled out the Inventories. It was decided however, that 77 of the enrolled Canadian students would provide a fairly accurate

picture of the average Senior High School student at Rosthern Junior College.

3. The results from the findings are limited, in that some of the data were nominal, ordinal, or interval, rather than ratio.

Delimitations

Because of the comprehensiveness of the topic of this study it was necessary to set some boundaries in this study.

1. There are several factors in this study that have not been accounted for. However, it is the purpose of this study to identify the basic high school profile. Further studies could explore the influence of other variables such as:
 - a. the home area of the students--rural, urban.
 - b. the exact procedures and standards applied in the selection of the students.
 - c. whether or not it was the student's choice to attend this residential school.

Even though some of the data are not available, sufficient data are available for an extensive report on the moral and emotional maturity of Senior High School students in this residential school.

CHAPTER 5

RESULTS

The focus of this study is an analysis of the level of moral development and the degree of inner-directedness in the Grade 11 and 12 population of a private residential school where value development and personal development are specifically emphasized.

The results of the study will be presented as follows:

- a. General information about the student body.
- b. Moral Maturity scores as presented through the use of the Kohlberg Moral Development Scale.
- c. Self-actualization as measured by scales of the Personal Orientation Inventory.
- d. The severity of evaluation of human behavior as reflected in the Situational Appraisal Inventory.
- e. Intercorrelations among the instruments used in this study.

Reference will be made to published norms available for general high school populations, and the Rosthern Junior College will be compared with these norms. This comparison, however, will be made with reference to special limitations that must be taken into consideration.

Population and Sample

There were 86 students present in Grades 11 and 12,

out of the actual enrollment of 97, the day the tests were administered. Table 1 presents a summary of the distribution of the population by grade and sex. The average length of stay in residence is just a fraction over one year. The average length of attendance at this residential school is 1.84 years. Students range in age from 15-22 years of age, with the average age being 17.12 years.

Table 1
Distribution of Population in
Rosthern Junior College

Sex	Grade 11	Grade 12	Total
Males	10	23	33
Females	22	31	53
Total	32	54	86

In the fall of 1971 the entire school population was given the Differential Aptitude Tests. The Verbal Reasoning plus Numerical Ability score, which measures the general scholastic aptitude, was recorded in this study for each student. This score is the equivalent in meaning to "mental ability" scores on most traditional group tests of "intelligence". It was found that the average percentile score in

this group was 73.63. Similarly, the Abstract Reasoning score was recorded; this is a non-verbal, non-numerical measure of reasoning power, a measure of the ability to see relationships among things. This population had an average percentile score of 78.32.

Kohlberg Moral Development Scale

The Kohlberg Moral Development Scale was used to determine at what levels of moral development the students at Rosthern Junior College functioned. Related to this question was the question of the degree to which these students used stage mixture in response to questions regarding moral issues.

Moral Maturity Score. The two trained scorers who received their training under Dr. Terry Percival and Dr. William Blanchard at the University of Alberta in 1968-69, used Kohlberg's Global Rating Guide to rate the responses of each subject. The interjudge reliability was found to be .92. If the response was of a single type, only one score was assigned, weighted 3 units. When there was a mixed response, two scores were assigned: the major type received a weight of 2, the minor type received a score of 1. After the 5 situations were scored, the sum for each level was obtained, and this was converted to percentage. The child's total moral maturity or moral age score was the sum of the weighted percent usage of each level. (The weighted percent was obtained by multiplying each level by the percentage of

responses in it.) Table 2 illustrates the scoring procedure.

Table 2

Illustrative Scoring Procedure

Profile of one Subject

Moral Stages	Kohlberg Situations					Sum	Percent	Weighted Percentages
	I	II	III	IV	V			
1	-	-	-	-	-	0	0.0	0.0
2	-	-	-	3	1	4	26.7	53.4
3	2	2	2	-	2	8	53.3	159.9
4	-	1	1	-	-	2	13.3	53.2
5	1	-	-	-	-	1	6.7	33.5
6	-	-	-	-	-	0	0.0	0.0
Total Moral Maturity Score								300.0

Scoring reveals that Rosthern Junior College students had Moral Maturity scores ranging from 259.7 to 459.6, with the mean score at 350.45.

Variation Score. Turiel's findings (Turiel, 1969) show that the degree of mixture has different implications at different points in development. In the early stages during the younger years there is stage consistency because developmental change is slow. A little later, children in

the years of rapid development tend to display a substantial increase in stage mixture. If they stabilize at the lower levels, instead of advancing to the higher stages, there is a noticeable leveling of degree of mixture. However, if children advance to the higher stages, the earliest emergence of these higher stages is characterized by a great amount of mixture. Finally, mixture decreases considerably as the higher stages stabilize. Turiel calculated a "variation score" for each subject to provide a measure of stage mixture. The percentage of a subject's responses on a stage was multiplied by the number of stages separating that stage from the modal stage. These products were then summed. Thus, the higher this score, the greater the mixture.

The mean variation score of the 75 usable profiles from Rosthern Junior College was 45.94. In order to compare the variation scores at the different age levels in the Rosthern Junior College population with the variation scores presented in Turiel's study, it was necessary to group the scores into the lower stage (with a modal stage of 1, 2, or 3), and the higher stage (with a modal stage of 4, 5, or 6). When there was only 1 subject at one age level, the score was not used for this comparison. As stated by Turiel (1969), stage 4 can be regarded as advanced for our purposes since there are very few subjects who responded at the stage 5 or 6 level.

Most of the variation scores illustrated in Turiel's study (1969) refer to subjects at ages 10, 13, and 16. Since

Rosthern Junior College is composed of students over the age of 15, only the age 16 scores will be used for comparative purposes. However, Turiel does summarize the variation scores of the older subjects in the Kramer study, so a comparison of variation scores at later ages is possible. Figure 1 presents the variation scores at the different ages for the different groups, keeping the higher stage and lower stage groups separate. As illustrated by Figure 1, the Rosthern Junior College variation scores, both for the lower and higher stage subjects, are considerably smaller than any other group scores. A second observation can be made: Turiel found, by analyzing Kramer's group, that the mixture in adulthood was less at the higher stages than at the lower stages; in Rosthern Junior College there was only one subject of age 19 in the higher stage group, so it can only be suggested that there is a possibility that the older subjects at the lower stage may have a greater variation score, and that the higher stage subjects show less mixture as a result of stabilization.

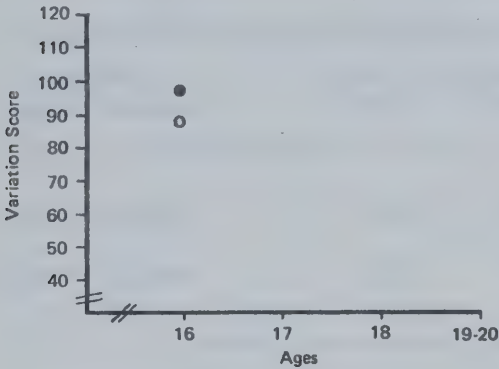
These results can be summarized by dividing the Kramer and Rosthern Junior College subjects into two age ranges. Table 3 presents the comparison of the trend towards stabilization of the higher stages in early adulthood, limited, as already stated, by the fact that the Rosthern Junior College group has only one subject in the higher stage at age 19-20, and only 4 subjects in the lower stage at age 19-20.

Figure 1

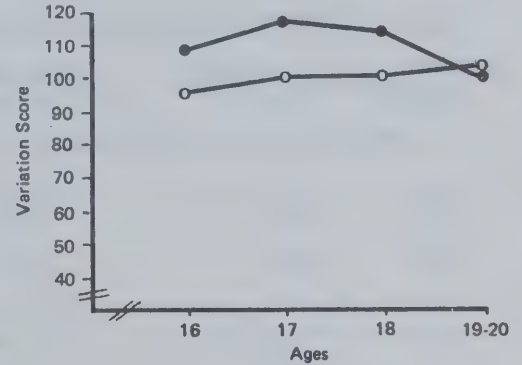
Analysis of stage mixture:

Mean variation scores for lower stage subjects (stages 1, 2 and 3) in six different groups and for higher stage subjects (stages 4, 5 and 6) in four different groups

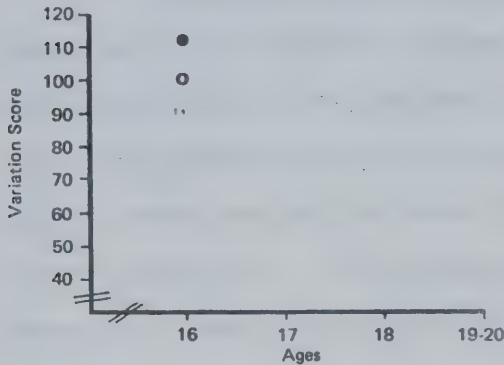
● Kohlberg Middle Class low N = 12
○ Kohlberg Low Class low N = 12



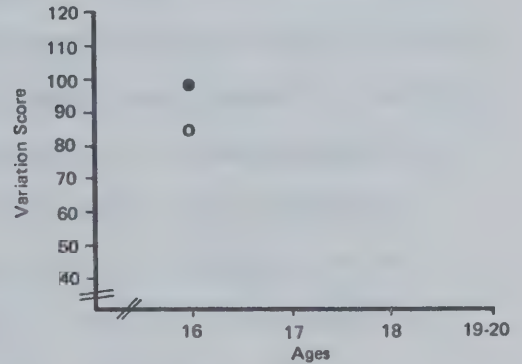
● Kramer Middle Class high N = 50 ages 14 - 26
○ Kramer Middle Class low



● Turiel Middle Class high N = 24
○ Turiel Middle Class low N = 7



● Rural USA high N = 36
○ Rural USA low



● Rosthern Junior College high N = 29
○ Rosthern Junior College low N = 43

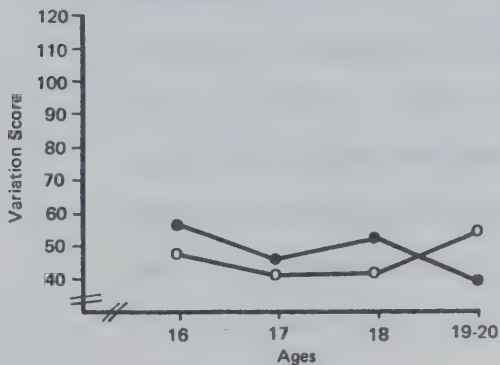


Table 3

Mean Variation Scores at Two Age Ranges for
Subjects at Lower and Higher Stages

Dominant Stage Groups	Kramer Age Ranges		Rosthern Age Ranges	
	14-18	19-26	15-18	19-20
Lower Stage	98	104	43	53
Higher Stage	113	98	49	40

Classification of Scores. In order to answer the question of how far the students of Rosthern Junior College had progressed in the stages of moral development, a more detailed classification was attempted. In responding to moral issues not all subjects fall neatly into dominant types: stages 1-6. The responses of the subjects were therefore classified according to Percival's extension of the basic types, using mixed types (Percival, 1970).

- a. Dominant type classification: if at least 53% of a subject's responses conform to that particular type (e.g., stage 3), and if the score for any other particular type was not greater than 30%.
- b. Mixed type classification: if the subject's responses were at least 35% of one type (but not greater than 53%) and at least 70% of his total responses are

accounted for by no more than two type scores.

- c. Total mixed classification: if the subject's responses reveal no more than 35% content at any one type.
- d. Mixed V - VI classification: if the subject's responses equal at least 60% by combining stages 5 and 6.

Table 4

Classification of Rosthern Junior College Subject
Responses on the Kohlberg Moral Development
Scale, Using Mixed Categories

Classification of Responses		Ages						Type Totals
		15	16	17	18	19	20	
Mixed II-III	N %							
Dominant III	N %		6 33.3	10 28.6	4 25.0	3 60.0	1 100.0	24 31.6
Mixed III-IV	N %		8 44.4	18 51.4	9 56.3			35 46.0
Dominant IV	N %	1 100.0	2 11.1	2 5.7	1 6.3	2 40.0		8 10.5
Mixed III-IV-V	N %		2 11.1	4 11.4	2 12.5			8 10.5
Dominant V	N %			1 2.9				1 1.3
Mixed V-VI	N %							
Totals		1	18	35	16	5	1	76

Table 4 is an analysis of the Rosthern Junior College population according to the categories presented by Percival (1970). The analysis indicates that the majority of students function at level II, stages 3 and 4; the total percentage at this level, obtained by adding the mixed and dominant types, is 88.1%. There are no responses at the Pre-conventional Level, and only one subject responded quite clearly at the Post-conventional Level. However, there were 8 subjects that used a mixture of responses from stage 3 to stage 5.

Modal Scores. Kohlberg, in reporting the level of moral development of his subjects, employed the use of the mode. Generally, in responding to the moral dilemma situations presented by Kohlberg (Kohlberg, 1963a, 1963b, 1964, 1966, 1968a, 1969, 1970), subjects tended to use one type of stage response most frequently. Much of Kohlberg's work recorded responses of subjects in terms of their mode; such an analysis is useful for summarizing the level of development in a particular group. Since Kohlberg worked primarily with the 10 - 16 age range, it is possible to make an in depth comparison of the Rosthern Junior College 16 year old subjects with the Kohlberg 16 year old subjects.

Table 5 presents a summary of the Rosthern Junior College subject responses on the Kohlberg Moral Development Scale, using the mode to determine at which stage each subject is placed. Whereas 72.2% of the 16 year old subjects

Table 5

Modal Distribution of Rosthern Junior College Population

Within the Kohlberg Stages of Moral Development

Kohlberg Stages	Rosthern Junior College		RJC Age 16 Sample	
	Number	Percentage	Number	Percentage
1	--	--	--	--
2	--	--	--	--
3	44	58.68	13	72.20
4	27	36.00	4	22.20
5	4	5.33	1	5.60
6	--	--	--	--

functioned at stage 3 in solving moral issues, only 58.68% of the total Rosthern Junior College population used stage 3 predominantly. There was a higher percentage of students using stage 4 responses in the total population than in the 16 year old sample, suggesting that the greater amount of movement occurs at the stage 3 to the stage 4 level.

The distribution of the 16 year old subjects over the different stages of development at Rosthern Junior College can now be compared with some of the groups studied by Kohlberg and Turiel (1969). Figure 2 presents this comparison. Rosthern Junior College had no subjects at Stages 1, 2, or 6 in the age 16 category. This was in contrast to the other four samples used in the comparison. Rosthern Junior College had a high percentage of subjects at the Conventional level, whereas the other groups in Figure 2 are characterized by the greater range of responses.

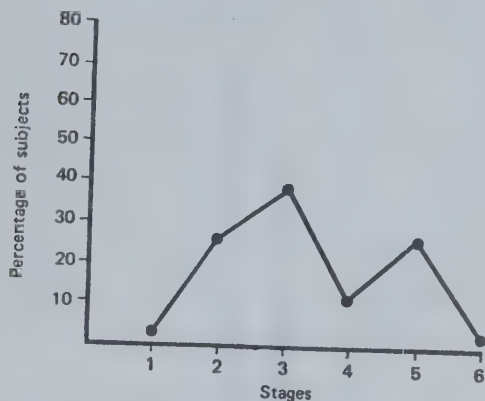
Test of Significance of Difference. In his research on moral development Kohlberg (1963a) pursued the study of sex differences. He found no significant differences between male and female responses. The application of a T-test to the Kohlberg data of Rosthern Junior College (Table 6) indicated that there was no significant sex difference in the level of moral development.

Summary. The mean Moral Maturity Score at Rosthern Junior College was 350.45. The mean variation score was 45.94; this was considerably smaller than any other variation

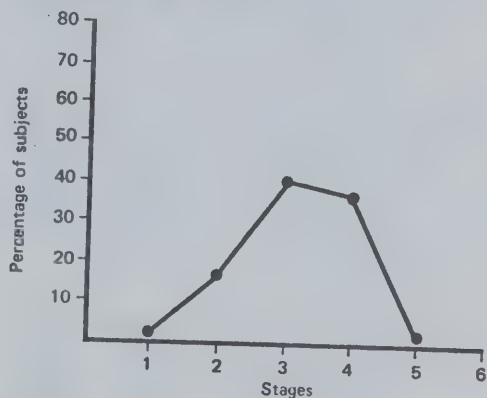
Figure 2

Percentage of subjects of age 16
at the different stages of moral development

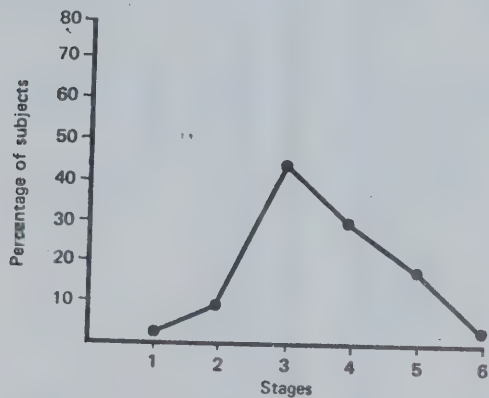
Kohlberg (middle class) urban



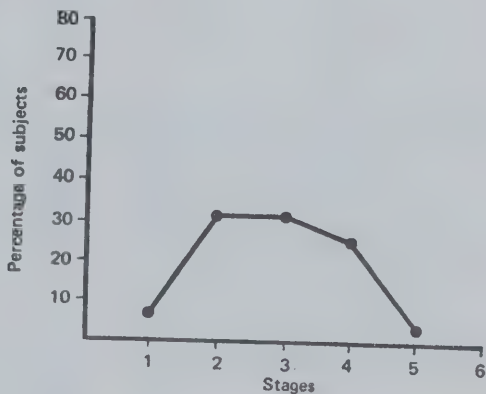
Kohlberg (low class) urban



Turiel (middle class) urban



USA (rural) group



Rosthern Junior College

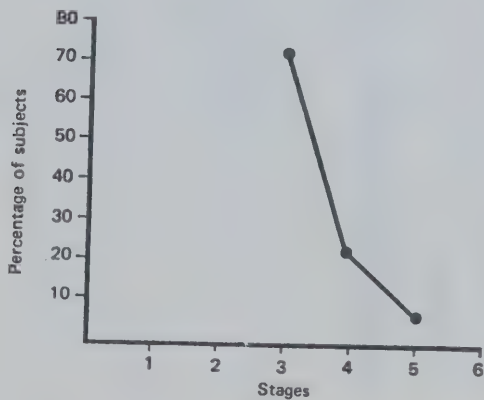


Table 6

Application of T-Test to Determine Male-Female Differences
in RJC Group on the Moral Development Scale

Variable	\bar{x}	Males S.D.	Females \bar{x}	S.D.	DF	P
Moral Maturity Score	3508.21	376.24	3502.23	338.34	73	0.944
Variation Score	441.61	151.85	470.06	196.70	73	0.513
Dominant Category Score	3.04	1.04	3.02	0.97	73	0.952

score available for comparison. The older lower stage subjects tended to have a higher variation score than the older higher stage subjects, suggesting less stabilization in the lower stage group. The use of Percival's categories (1970) indicated that 88.1% of Rosthern Junior College students functioned at Level II, but within this percentage 46% were in a mixed group, using stages 3 and 4. Only one subject, out of a possible 76, responded at the Post-conventional Level. Lastly, by grouping the responses of subjects according to the mode, it was found that 58.68% of the students used stage 3 responses, and 36% of the students used stage 4 responses to solve moral issues.

Personal Orientation Inventory

The major concern in using the Personal Orientation Inventory was to establish the degree to which students at Rosthern Junior College are guided by internalized principles and motivations. Since the scores on the subscales reflect a facet important in this development of self-actualization, these results will all be tabulated.

Studies have been done by Shostrom (1964) to compare where "self-actualizing" individuals score in comparison to "non-self-actualizing" individuals. This is a very clear framework within which we can place the scores of the Rosthern Junior College population; the comparison is therefore a comparison with the "extremes". Table 7 presents the mean score of the groups, together with the mean scores

Table 7

Comparison of Means of R.J.C. with "Self-Actualized", Normal, and
 "Non-Self-Actualized" Groups on Personal Orientation
 Inventory Dimensions

Dimensions	Comparison of Total Mean Scores				P-contrasting SA & NSA Groups Only
	RJC (76)	SA Group (29)	Norm Group (158)	NSA Group (34)	
T _I	6.47	3.72	5.06	7.06	.01
T _C	16.32	18.93	17.70	15.82	.01
O	48.41	31.13	37.35	49.65	.01
I	76.40	92.86	87.25	75.76	.01
SAV	17.90	20.69	20.17	18.00	.01
Ex	19.30	24.76	21.80	18.85	.01
Fr	14.33	16.28	15.74	14.26	.05
S	10.65	12.66	11.65	9.79	.01
Sr	10.18	12.90	11.97	10.21	.01
Sa	14.29	18.93	17.09	14.21	.01
Nc	10.86	12.34	12.37	11.29	.1
Sy	6.25	7.62	7.32	6.18	.01
A	14.66	17.62	16.63	14.74	.01
C	15.50	20.21	18.80	16.47	.01

of Rosthern Junior College, on the Personal Orientation Inventory Dimensions. These mean scores on the POI become more meaningful when they are compared on the profile; Figure 3 presents this comparison. Rosthern Junior College scored lower than the Norm group mean on all dimensions. However, RJC scored higher than the "non-self-actualized" mean on the Time Competence, Inner-directedness, Existentiality, Feeling Reactivity, Spontaneity, Self-Acceptance, and Synergy.

The comparison with the extremes of "self-actualization" and "non-self-actualization" becomes more meaningful when the Rosthern Junior College population is also compared with a similar age group. A study was done by William Weir on a high school sample of 412 students. The results, quoted in Shostrom's POI manual (1964), are presented as a total group, and as a comparison between the sexes.

A T-test revealed several significant differences between Weir's sample and the Rosthern Junior College population. Figure 4 presents this comparison. For more precise comparisons and for research purposes the scale means and standard deviations for each group are presented in Table 8.

Of the 5 significant comparisons, the Rosthern Junior College students scored significantly lower on Self-Regard and on the Constructive View of the Nature of Man. Rosthern Junior College students scored significantly higher on Time Competence, Existentiality, and Feeling Reactivity.

The Rosthern Junior College females were then compared

Figure 3

Comparison of "Self-Actualized", Normal, "Non-Self-Actualized", and Rosthern Junior College Scores on the Personal Orientation Inventory

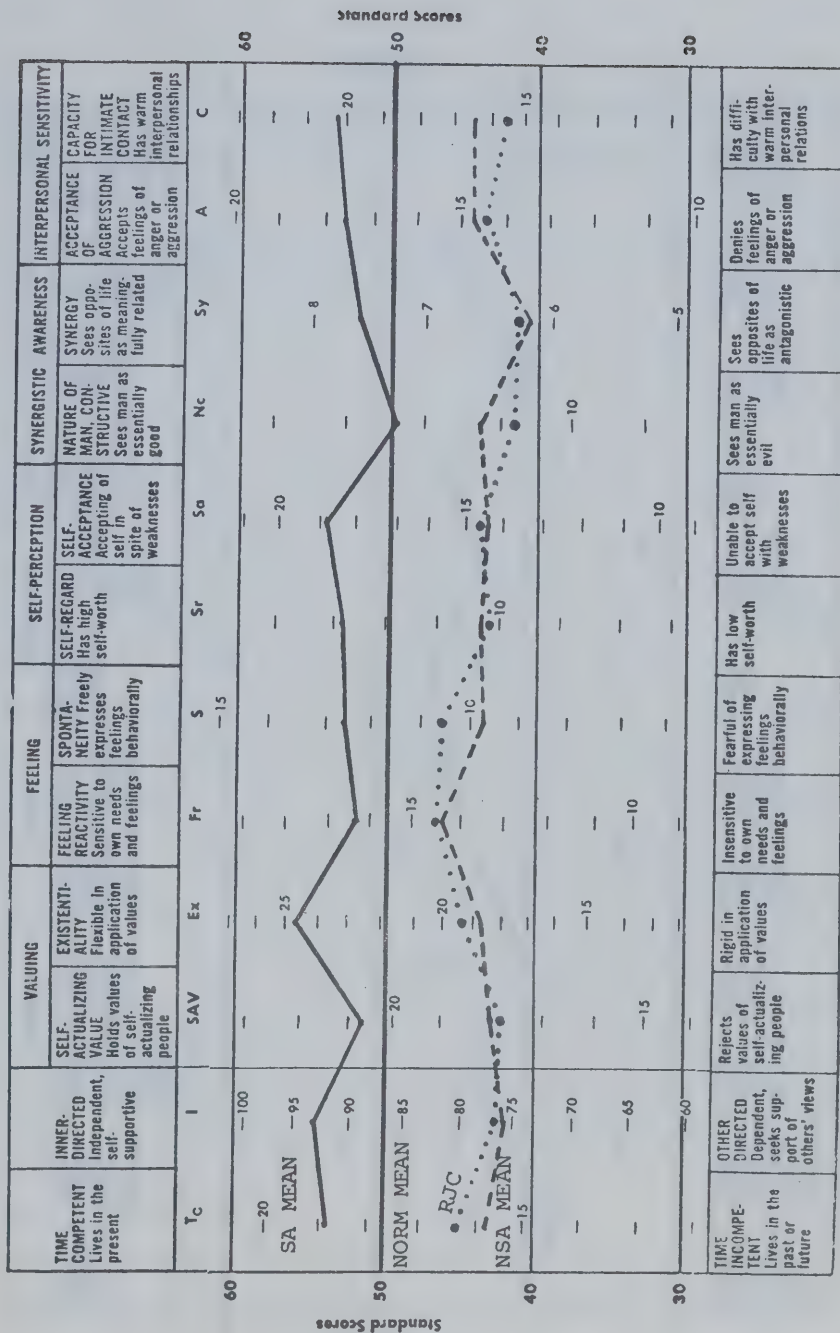


Figure 4

Comparison of High School POI Means: William Weir's Sample (N-412), and Rosthern Junior College (N-76)

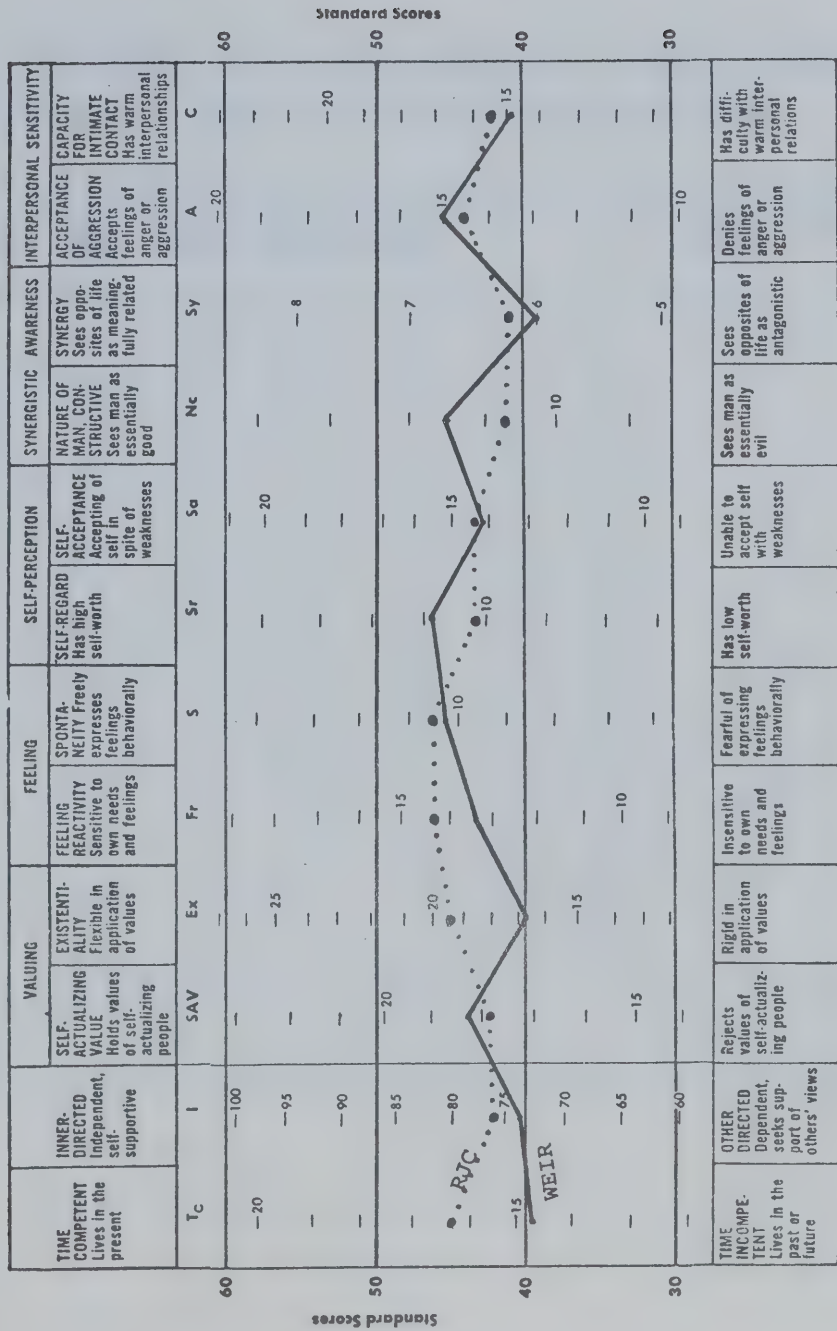


Table 8

T-test on Personal Orientation Inventory, Comparing Weir's
High School Sample with Rosthern Junior College

Dimension	Weir Sample Mean	Weir Sample S.D.	RJC Sample Mean	RJC Sample S.D.	T	DF	Significance Level
T _C	14.8	2.9	16.32	2.0	-4.39	486	.001
I	74.8	8.5	76.40	10.8	-1.44	486	
SAV	18.2	2.7	17.90	3.1	0.87	486	
Ex	16.7	3.8	19.30	4.1	-5.43	486	.001
Fr	13.4	2.9	14.33	3.3	-2.52	486	.02
S	10.2	2.6	10.65	2.5	-1.40	486	
Sr	10.9	2.2	10.18	2.5	2.58	486	.01
Sa	14.1	3.0	14.29	2.8	-0.51	486	
Nc	11.5	1.9	10.86	2.3	2.60	486	.01
Sy	6.0	1.3	6.25	1.3	-1.55	486	
A	15.0	2.9	14.66	3.0	0.94	486	
C	14.9	3.6	15.50	3.5	-1.35	486	
Number	412		76				

on the Personal Orientation Inventory to the females in William Weir's sample. A T-test revealed several significant differences between Weir's female high school sample and the female population of Rosthern Junior College. Figure 5 presents this comparison. For more precise comparisons and for research purposes the scale means and standard deviations for each female group are presented in Table 9.

Of the 5 significant comparisons, the Rosthern Junior College females scored significantly lower on the Constructive View of the Nature of Man, Self-Regard, and on Acceptance of Self-Actualizing Values. They scored significantly higher on Time Competence, and Existentiality.

The Rosthern Junior College males were compared on the Personal Orientation Inventory to the males in William Weir's sample. A T-test revealed several significant differences between Weir's male high school sample and the Rosthern Junior College males. Figure 6 presents this comparison. For more precise comparisons and for research purposes the scale means and standard deviations for each male group are presented in Table 10.

The Rosthern Junior College males scored significantly higher than Weir's male sample on Time competence, Existentiality, and on Synergy.

In considering the degree to which the students at Rosthern Junior College are guided by internal principles, it is of value to determine whether there are any significant sex differences. Weir found only one significant difference:

Figure 5

Comparison of High School POI Means: William Weir's Female Sample (N=216), and Rosthern Junior College (N=47)

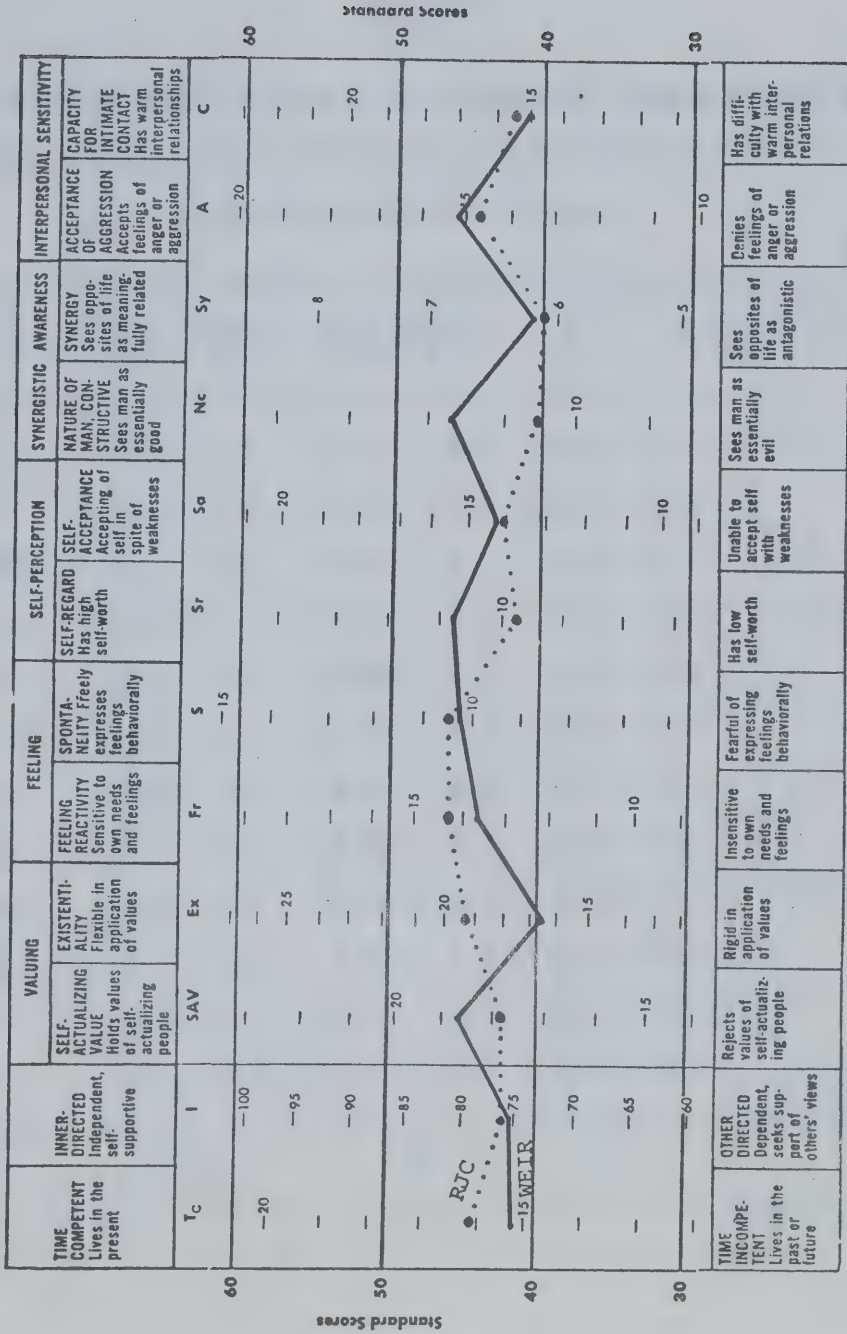


Table 9

T-test on Personal Orientation Inventory, Comparing Weir's
Female High School Sample with the Female Population
of Rosthern Junior College

Dimension	Weir Sample		RJC Sample		T	DF	Significance Level
	Mean	S.D.	Mean	S.D.			
T _C	15.2	2.6	16.15	2.0	-2.36	261	.02
I	75.1	8.3	75.91	11.3	-0.57	261	
SAV	18.8	2.5	17.91	3.1	2.13	261	.05
Ex	16.5	3.7	19.38	4.3	-4.70	261	.001
Fr	13.7	2.7	14.38	3.2	-1.51	261	
S	10.2	2.3	10.49	2.5	-0.77	261	
Sr	10.8	2.2	9.83	2.6	2.67	261	.01
Sa	14.2	2.9	14.09	2.9	0.24	261	
Nc	11.7	1.7	10.55	2.4	3.89	261	.001
Sy	6.2	1.2	6.19	1.4	0.05	261	
A	15.1	2.8	14.79	2.8	0.69	261	
C	15.0	3.3	15.43	3.7	-0.80	261	
Number	216		47				

Figure 6

Comparison of High School POI Means: William Weir's Male Sample (N=196), and Rosthern Junior College (N=29)

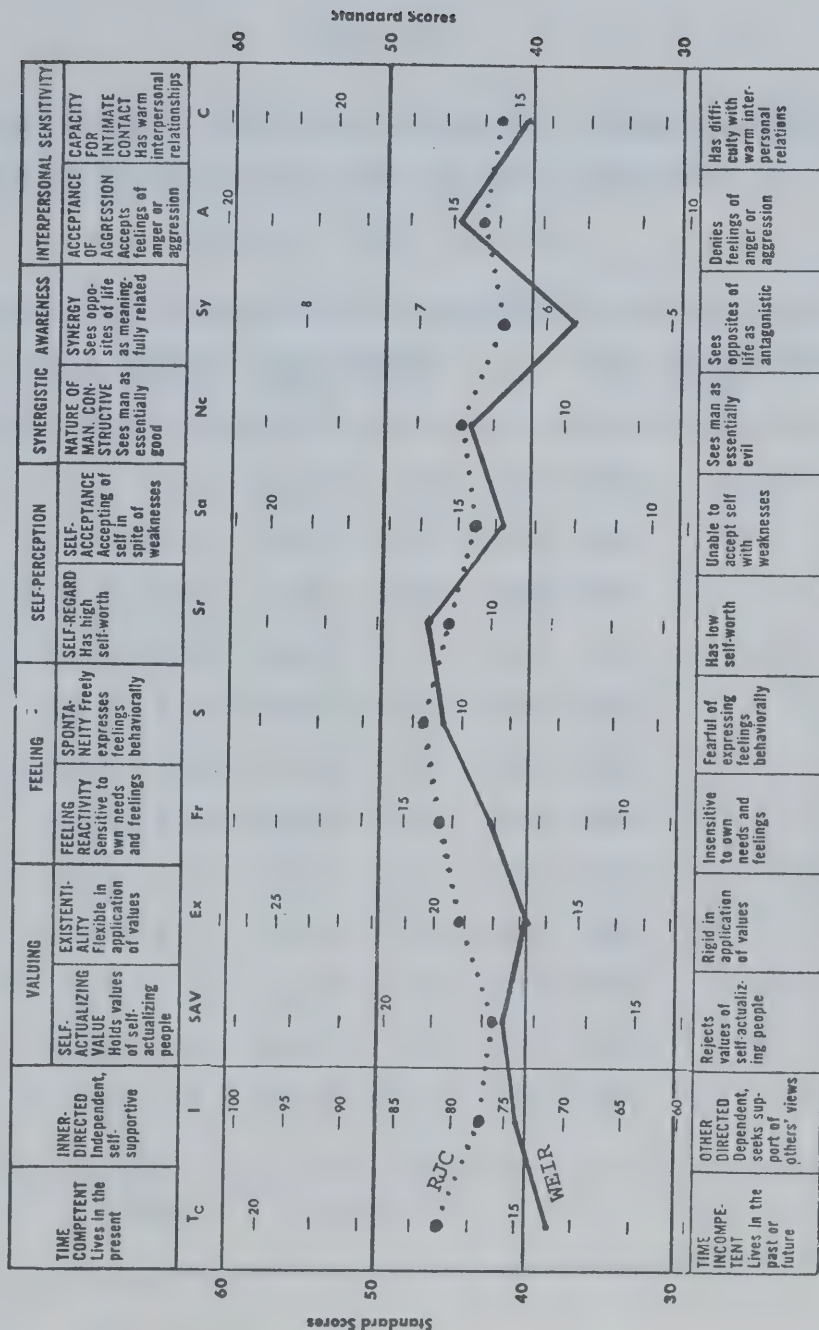


Table 10

T-test on Personal Orientation Inventory, Comparing Weir's
Male High School Sample with the Male Population of
Rosthern Junior College

Dimension	Weir Sample		RJC Sample		T	DF	Significance Level
	Mean	S.D.	Mean	S.D.			
T _C	14.4	3.1	16.59	2.0	-3.71	223	.001
I	74.4	8.8	77.17	10.2	-1.56	223	
SAV	17.6	2.8	17.86	3.2	-0.46	223	
Ex	16.8	4.0	19.17	3.7	-3.02	223	.01
Fr	13.1	3.1	14.24	3.5	-1.83	223	
S	10.3	2.6	10.90	2.6	-1.17	223	
Sr	11.0	2.2	10.76	2.3	0.55	223	
Sa	13.9	3.1	14.62	2.6	-1.19	223	
Nc	11.2	2.1	11.34	2.2	-0.33	223	
Sy	5.8	1.4	6.34	1.2	-1.99	223	.05
A	14.9	3.0	14.45	3.3	0.75	223	
C	14.8	3.8	15.62	3.2	-1.11	223	
Number	196		29				

high school males scored significantly lower than high school females on the SAV scale. Although there were no significant differences between the males and females in the Rosthern Junior College population, there were several interesting trends that could be explored by further research. Table 11 presents a comparison of the male-female differences both in Weir's sample and in the Rosthern Junior College.

The Rosthern Junior College population had higher means than the Weir sample for both sexes on several scales: Time Competence, Existentiality, Feeling Reactivity, and Capacity for Intimate Contact. Rosthern Junior College scored lower, for both sexes, on the Aggression Acceptance Scale, and the Self-Regard Scale.

There were some curious reversals evident when the two groups were compared. Whereas the Rosthern Junior College males scored higher than the Rosthern Junior College females on the Time Competence Scale, Weir's females scored higher than the males in his sample on the Time Competence Scale. The Rosthern Junior College males scored higher on Inner-Directedness in the Rosthern Junior College study, while the females in Weir's sample scored higher than did the males. Rosthern Junior College males saw the Nature of Man as more constructive than did the Rosthern Junior College females; in Weir's sample the females saw the Nature of Man from a more constructive viewpoint.

On two scales there was a trend for the Rosthern

Table 11

Means, Standard Deviations, and Significance of Differences
Between Male and Female Samples of High School Students--
Wm. Weir's High School Sample and Rosthern Junior College

POI Scale	Group	Male		Female		Weir	Rosthern Junior College P
		Mean	S.D.	Mean	S.D.	Mean Diff.	
T _C	RJC	16.59	2.0	16.15	2.0	-0.8	.36
	Weir	14.4	3.1	15.2	2.6		
I	RJC	77.17	10.2	75.91	11.3	-0.7	.63
	Weir	74.4	8.8	75.1	8.3		
SAV	RJC	17.86	3.2	17.91	3.1	-1.2*	.94
	Weir	17.6	2.8	18.8	2.5		
Ex	RJC	19.17	3.7	19.38	4.3	0.3	.83
	Weir	16.8	4.0	16.5	3.7		
Fr	RJC	14.24	3.5	14.38	3.2	-0.6	.86
	Weir	13.1	3.1	13.7	2.7		
S	RJC	10.90	2.6	10.49	2.5	0.1	.50
	Weir	10.3	2.6	10.2	2.3		
Sr	RJC	10.76	2.3	9.83	2.6	0.2	.11
	Weir	11.0	2.2	10.8	2.2		
Sa	RJC	14.62	2.6	14.09	2.9	-0.3	.42
	Weir	13.9	3.1	14.2	2.9		
Nc	RJC	11.34	2.2	10.55	2.4	-0.5	.15
	Weir	11.2	2.1	11.7	1.7		
Sy	RJC	6.34	1.2	6.19	1.4	-0.4	.61
	Weir	5.8	1.4	6.2	1.2		
A	RJC	14.45	3.3	14.79	2.8	-0.2	.63
	Weir	14.9	3.0	15.1	2.8		
C	RJC	15.62	3.2	15.43	3.7	-0.2	.81
	Weir	14.8	3.8	15.0	3.3		

*Significant at the .01 level

Junior College males to score higher than the Rosthern Junior College females: The Nature of Man ($p=.15$), and Self-Regard ($p=.11$).

In summary, Rosthern Junior College scored below the norm mean on all scales of the Personal Orientation Inventory when being compared to the "Self-Actualizing" group. However, when Rosthern Junior College was compared to a high school sample, Rosthern Junior students scored significantly higher on several scales: Time Competence, Existentiality, and Feeling Reactivity. In this same high school comparison Rosthern Junior College scored significantly lower on Self-Regard, and on the Constructive View of the Nature of Man.

Situational Appraisal Inventory

The Situational Appraisal Inventory was used to assess with what degree of severity the students at Rosthern Junior College evaluated different kinds of behavior that involved moral issues.

For this 30-item inventory a 7 rating indicated that the behavior was rated "extremely wrong", whereas a 0 rating meant that the behavior described was not considered wrong at all. Using this rating as a basis, it was found that the mean rating on the 30 items for the average student was 143.97. The average mean rating for each item in the Inventory was therefore 4.80. Fourteen items received a mean rating of 5 or more: items 4, 6, 7, 9, 10, 14, 16, 17, 18, 20, 21, 22, 26, and 29. There were 3 items that Rosthern Junior College rated lower than 2.99: items 3, 11, and 13.

Since some of the questions seemed to be looking at similar types of behavior a factor analysis was used. Items 8, 9, 10, 17, 19, 20, 21, 22, 24, 25, 26, 28, and 29 grouped quite definitely under factor 1 (consult Appendix E). The items in this factor seemed to deal with conflict between personal desires and needs, and legal-social expectations. Students evaluated all these items above the 4.27 rating, indicating that they disapproved of behaviors favoring personal gain at the expense of others. These items are similar to the Kohlberg situations in that they involve interpersonal conflict in the area of personal rights.

Items 4, 5, 6, 7, 18, and 30 identify factor 4. All these items from the Situational Appraisal Inventory deal with situations involving sexual feelings and needs. With the exception of item 30, all these items were rated above 4.95; the students of Rosthern Junior College rated any deviance in regard to accepted standards of behavior in the sexual area with considerable severity.

Factors 2 and 3 seem to possess some common characteristic; since only a small number of items distinctly identify each factor, labelling was not attempted. Items 1, 2, 3, and 11 define factor 2. Only items 12 and 13 were distinctly part of factor 3.

In the analysis of the responses on the Situational Appraisal Inventory it was found that females tended to be more severe in evaluative ratings than the males at Rosthern Junior College. As Table 12 indicates, the female mean

Table 12

Comparison of SAI Total Scores on Males and Females
on Form J for Pittel's Sample and for
Rosthern Junior College

Sample	Males		Females		T	Level of Significance
	Mean	S.D.	Means	S.D.		
			N	N		
Pittel	119.26	26.96	100	128.00	28.60	100
RJC	135.34	29.42	29	150.74	28.55	46
Level of Significance	p<.01		p<.001		2.10	p<.05
					-2.25	p<.03

rating on the 30 items was 150.74, whereas the male mean rating on the 30 items was 135.34. The average mean rating for each item in the Inventory was 4.51 for the male students, and 5.02 for the female students at Rosthern Junior College. The females therefore evaluated the behaviors described in this Inventory significantly more severely than the males at the .03 level of significance.

In order to identify the specific types of behavior evaluated more severely by either the males or females, and to identify the behaviors that are evaluated similarly by the entire population of Rosthern Junior College, an item by item analysis is presented in Table 13. As indicated in Table 13, items 7, 12, 19, 22, 27, 29, and 30 are evaluated significantly more severely (at the .05 level, or less) by the females at Rosthern Junior College. Both the males and the females of this College rated items 9, 14, 18, 20, and 22 with a rating of 5.5 or higher. There was a significant difference in items 7, 11, 22, and 29 between the sexes in the variation of opinion; this variation of opinion was greater in the male population for all these items except item 11, which deals with the matter of eating as much as possible at a Smorgasbord. Three items were rated at 3.55 or lower by both sexes; these items dealt with overeating at a Smorgasbord, using published notes to ease studying loads, and participating in gambling. There were four questions in which both sexes indicated that there was a wide spread of opinion; questions 5, 12, 13, and 30 had a variance score of over 3.50 for both sexes. These questions dealt with the

Table 13

Comparison of Males and Females on an Item by Item Analysis of the
Situational Appraisal Inventory for Rosthern Junior College

SAI Items	Male			Female			T-test	F-test
	Mean	S.D.	Variance	Mean	S.D.	Variance	P	P
1	4.45	1.74	3.04	4.87	1.47	2.16	.265	.300
2	3.48	1.62	2.62	3.59	1.84	3.40	.804	.464
3	3.48	1.70	2.90	2.74	1.89	3.57	.089	.564
4	5.28	1.65	2.71	5.52	1.83	3.37	.559	.546
5	4.90	2.04	4.17	5.07	2.17	4.73	.739	.734
6	5.10	1.52	2.31	5.72	1.72	2.96	.120	.489
7	5.10	1.97	3.88	6.30	1.24	1.55	.002**	.006**
8	4.83	1.69	2.86	5.54	1.53	2.34	.062	.539
9	6.07	1.13	1.28	6.22	1.03	1.06	.561	.566
10	5.07	1.58	2.50	5.63	1.27	1.62	.094	.190
11	1.31	1.07	1.15	1.98	1.90	3.62	.089	.002**
12	2.55	1.92	3.68	3.87	1.98	3.94	.006**	.867
13	2.93	1.98	3.92	2.83	2.06	4.24	.828	.845
14	5.86	1.30	1.69	6.26	1.20	1.44	.179	.616
15	4.59	1.57	2.47	4.50	1.55	2.39	.816	.905
16	5.10	1.78	3.17	5.22	1.62	2.62	.776	.558
17	5.14	1.66	2.77	5.83	1.37	1.88	.055	.244
18	5.62	1.52	2.32	6.24	1.29	1.65	.063	.307
19	3.79	1.80	3.24	4.76	1.83	3.34	.028*	.950
20	6.00	1.07	1.14	6.24	0.92	0.85	.308	.374
21	5.31	1.20	1.44	5.85	1.26	1.60	.072	.776
22	5.62	1.59	2.53	6.39	1.00	1.00	.012*	.005**
23	3.41	1.55	2.39	3.70	1.85	3.42	.496	.320
24	4.72	1.65	2.71	5.26	1.63	2.64	.170	.922
25	4.38	1.57	2.46	4.93	1.54	2.37	.135	.897
26	4.79	1.88	3.53	5.35	1.83	3.34	.209	.855
27	2.86	2.01	4.05	4.96	1.75	3.06	.000***	.396
28	4.83	1.47	2.15	4.74	1.56	2.42	.807	.750
29	5.48	1.50	2.26	6.13	1.00	1.00	.028*	.015*
30	3.28	2.10	4.42	4.52	2.28	5.19	.020*	.662

*Significant at the .05 level

**Significant at the .01 level

***Significant at the .001 level

conflict over the possibility of a mixed marriage, participation in gambling, a son using violence on a violent father, and masturbation.

Table 12 summarizes the results of the comparison of Rosthern Junior College to the group studied by Pittel (1969). The T-test indicated that the Rosthern Junior College males evaluated the 30 items of the Situational Appraisal Inventory significantly more severely at the .01 level. The comparison between the two female groups indicated that the Rosthern Junior College females rated the behaviors more severely at the .001 level of significance.

In summary, Rosthern Junior College evaluated the behaviors described significantly more severely than did Pittel's group. The items evaluated most severely dealt with interpersonal issues, and behaviors related to sexual issues. Whereas Pittel's males had an average mean rating of 3.98 per question, and his females had 4.27 per question, RJC males scored 4.51 per question and RJC females scored 5.02 per question.

Significant Intercorrelations Among the Instruments (Consult Appendix F)

In this study it was discovered that the Moral Maturity Score from the Kohlberg Scale had a significant positive correlation with question 9 of the Situational Appraisal Inventory (.001 level), and with the religious question regarding attendance at church (.01 level). However, the lower the variation score on the Kohlberg

Scale, the significantly more severe the evaluation of the SAI items 7, 10, 12, 16, 19, 22, and 23.

The total score on the SAI had a significant positive correlation with all 4 questions tapping orthodoxy of religious beliefs. This total SAI score correlated negatively with the Abstract Reasoning score (.05 level), and the Variation score for the Kohlberg Scale (.05 level). As stated previously, the females scored significantly higher than the males did on the SAI (.03 level).

It may be of interest to the curious reader that question 13 on the SAI (John had previously thought that gambling was bad but when he went to Reno and saw someone hit the jackpot he decided to try his luck.) correlated significantly, negatively, with 7 of the POI subscales, and also negatively (at the .001 level) with the Inner-Directed Scale in this instrument. Question 13 correlated negatively, at the .05 level, with both the Verbal Reasoning and Numerical Ability Scale, and the Abstract Reasoning Scale of the Differential Aptitude Tests. Also, the question correlated significantly, positively, with 2 of the questions relating to orthodoxy of religious belief.

Neither the Inner-Directed Scale nor the Time Competent Scale in the POI correlated significantly with the SAI or the Moral Maturity Score. The Inner-Directed Scale did correlate negatively at the .01 level of significance with the religious question concerning the influence of thoughts about God on personal behavior.

The religious questions correlated significantly with a fair number of the variables considered:

1. I attend church_____ (a) every week, (b) regularly, (c) only on special occasions, (d) never.

Regular church attendance correlated positively, at the .05 level, with grade averages. These subjects were also significantly more Other-Directed (.01 level), and significantly more severe in their evaluation of the behaviors of the SAI items 4, 7, 10, 13, 16, 18, 24, and 30. Regular church attendance correlated negatively, at the .05 level, with the Aggression Acceptance subscale of the POI.

2. I believe that God_____ (a) definitely exists, (b) probably exists, (c) probably does not exist, (d) definitely does not exist.

There was a negative correlation (.05 level) between a firm belief in God's existence and Spontaneity in the POI. The stronger the belief in the existence of God the more severe was the evaluation of questions 4, 7, 10, 14, 16, 18, and 24 of the SAI.

3. Thoughts of God enter my mind_____ (a) very often, (b) frequently, (c) occasionally, (d) never.

The females tended to answer this question with the "a" alternative significantly more often than did the males. Again the grade average correlated with this question positively, at the .01 level of significance. Those who tended to answer the above question affirmatively scored significantly lower (.05 level) on the Spontaneity, Self-Acceptance, and

Aggression subscales of the POI. Similarly, questions 2, 4, 7, 10, 12, 14, 15, 16, 17, 18, 19, 21, 24, 25, 26, and 29 of the SAI received more severe evaluation from subjects who professed to often think of God.

4. Thoughts of God influence my behavior_____ (a) very often, (b) frequently, (c) occasionally, (d) never. Students in the higher grade were more likely to answer the above question in the affirmative. There was also a significant, and positive correlation of the above question (in the affirmative) with the grade average, and questions 2, 4, 7, 10, 13, 14, 15, 16, 17, 18, 19, 21, 23, 24, and 26 of the SAI. The Inner-Directed Scale, and the Existentiality, Feeling Reactivity, Spontaneity, Self-Acceptance, Aggression, and the Capacity for Warmth subscales all correlated significantly, and negatively, with the affirmative response to the above question.

Questions 4, 7, 10, 16, 18, and 24 of the SAI correlated significantly with all 4 of the religious questions. These SAI questions deal with sex and dishonesty. This does support Pittel's findings (1969) that religious people tend to rate the SAI behaviors with more severity.

Further analysis indicated that the greater the involvement of the subjects in extra-curricular activities (involving music, drama, hobbies, sports, and social clubs) the more likely they used the higher categories of moral reasoning as presented by Kohlberg.

Several other significant correlations should be

mentioned:

1. The grade average correlated negatively with age (.01 level), and with the Self-Regard subscale on the POI (.01 level).
2. There were significant correlations between females, and, higher grade averages, thoughts of God influencing behavior, and severity of evaluations on 8 of the SAI questions.
3. The age of the subject correlated negatively with the grade average (.01 level), and, with questions 16, 17, 22, and 25 of the SAI at the .05 level of significance or less.
4. The Abstract Reasoning Score of the Differential Aptitude Tests correlated negatively with questions 11, 12, 13, 14, and 24 of the SAI, as well as with the total SAI score.
5. The length of stay in residence (some subjects lived at home) correlated positively with the POI subscales of Self-Actualizing Values (.05 level), and Nature of Man (.05 level). The length of stay in residence correlated negatively with Other-Directedness at the .05 level of significance. Questions 3 (.01 level), 11 (.05 level), 13 (.05 level), and 30 (.01 level) of the SAI correlated negatively with length of stay in residence.
6. Several of the POI subscales correlated negatively, at the .05 level of significance or less, with some

of the SAI questions:

- a. Synergy--Nos. 18, 22, 24, 25
- b. Capacity for Warmth--Nos. 13, 18
- c. Spontaneity--Nos. 7, 13, 14, 18, 23, 24, 25
- d. Feeling Reactivity--Nos. 11, 13, 18, 25
- e. Existentiality--Nos. 13, 14, 18
- f. Nature of Man--Nos. 13, 18, 19

SAI question 18, which correlated negatively with 6 POI subscales mentioned above, correlated positively, significantly, with all the 4 religious questions used in the study.

In summary, neither the Inner-Directed Scale nor the Time Competent Scale in the Personal Orientation Inventory correlated significantly with the Situational Appraisal Inventory or the Kohlberg's Moral Maturity Score. There was also no significant correlation between the Situational Appraisal Inventory and the Kohlberg Moral Maturity Score.

CHAPTER 6

DISCUSSIONS, IMPLICATIONS, CONCLUSIONS

The results presented in Chapter 5 provide a description of some of the characteristics of Senior High School students at Rosthern Junior College.

The first research question focussed on the problem of just how far students in Rosthern Junior College had developed in the area of moral reasoning. Analysis of the scores on the Kohlberg Moral Development Scale revealed several significant trends. In the first place, it was discovered that the greatest percentage of the Grade 11 and 12 population functions at Level II, stages 3 and 4. Stage 3 (Kohlberg, 1964) is described as the "good-boy" morality of maintaining good relations, where the approval of others is very important. At Stage 4 you have individuals conforming to avoid censure by legitimate authorities and resultant guilt. The level where self-accepted principles become basic in evaluating the entire conflict situation is attained at stages 5 and 6; Kohlberg's studies indicate that very few individuals reach this almost ideal state: morality of contract, of individual rights. About 10% of the Rosthern Junior College was using some stage 5 responses.

Considerable comparison data are available for a 16-year old population. By using the modals of the profiles,

it was illustrated that there were some clear differences in the concentration of subjects at the various Kohlberg stages. As illustrated by Figure 2, Rosthern Junior College had a unique absence of subjects in stages 1, 2, and 6. This was in contrast to the other four groups considered. As mentioned previously, Rosthern Junior College had a very high percentage of students in stage 3; two urban groups with middle class subjects had a fair number of 16-year-old subjects at stage 5, and also a small number at stage 6. Rosthern Junior College had a few subjects at stage 5, but had no subjects at stage 6. Thus there seemed to be a tendency for Rosthern Junior College to have a greater concentration of 16-year-old subjects at Level II; the other groups had their subjects distributed through more of the stages in Kohlberg's system. The relatively large concentration of students at Stage 3, both in the total population and the 16-year-old group, would suggest a possible relationship to the emphasis the school places on service to others.

A second important finding was that the variation scores at Rosthern Junior College were considerably smaller than those reported in a study by Turiel (1969) in which a high school sample was also used. Not enough data were available in the published study to determine whether the lower variation scores of Rosthern Junior College were significantly lower than those in Turiel's study; however, Figure 1 seems to indicate that the scores are much lower. This small variation score would seem to indicate that there is a tendency for the Rosthern Junior College population to

stabilize at Level II; this level is characterized by a need for group approval, and respect for authority. However, the variation scores of the older subjects in Rosthern Junior College, at the lower stage of moral development, seem to increase. Further study may clarify whether perhaps their progress to the more complex levels, if that upward movement does occur, may become evident at a slightly later age.

Another question raised in this study was whether participation in extracurricular activities, particularly those of a social nature, was in any way related to moral development. It was discovered, from the analysis of the data, that students quite involved in extracurricular activities did use the higher stages of moral judgment. Keasey (1971) found, in his study of sixth grade students, that the stage of moral development was found to be positively related to extent of social participation whether judged by self, peers, or teachers. Kohlberg (1966) found that children with extensive peer-group participation advance considerably more quickly through the Kohlberg stages of moral judgment; such people, Kohlberg states, experience a greater sense of participation in the social order, and gain that greater understanding of the social order which is essential to functioning at the higher stages.

The question of whether there was a significant sex difference in moral development was raised. The application of a T-test to the Kohlberg data from Rosthern Junior College

revealed that there were no significant differences between males and females in respect to value development. This corresponds to Kohlberg's findings that there is no significant difference in moral development due to sex differences.

The second major research question directed attention to the possible level students at Rosthern Junior College had attained in inner-directedness. The self-actualizing individual is guided by internal motivations. On both of Shostrom's major scales, Time Competence, and Inner-Directedness, Rosthern Junior College scored higher than the "non-self-actualizing" mean presented in the POI manual. As illustrated clearly in Figure 3, the students at Rosthern Junior College score above the "non-self-actualizing" mean on all the subscales, except on Self-Actualizing Values, Self-Regard, Nature of Man, Aggression, and Capacity for Warmth. In terms of Shostrom's Norm Mean, indicated in Figure 3, Rosthern Junior College scored below this mean on all the POI scales.

Although Rosthern Junior College scored below the Norm Mean on all the POI scales, a comparison with a high school population (Shostrom, 1964) indicated that Rosthern Junior College appeared to function at a comparable level. When the total Rosthern Junior College population was compared to Weir's high school sample, it was found that the Rosthern Junior College scored significantly higher on Time Competence, an important aspect of self-actualization, at the .001 level of significance. RJC also scored higher on Existentiality at the .001 level; this scale refers to the ability to use greater flexibility in the application of values. This means that Rosthern Junior College students seem to be more capable than Weir's sample, of applying basic principles to situations in a relevant way, and of using past

events and future goals in the present in a meaningful way. On Feeling Reactivity Rosthern Junior College scored higher than Weir's sample at the .02 level of significance. This means that Rosthern Junior College students seem to be more aware of their feelings and needs. Considering that most of the students' experiences center around the school (they live in residence, and all the activities form a continuity which is unique to a residential school), and that the religious emphasis necessarily focuses on the person, his feelings, his needs, and his goals, it could be suggested that possibly the higher scores on Time Competence, Existentiality, and Feeling Reactivity are influenced by this environment.

On Self-Regard and on the Constructive View of the Nature of Man subscales the Rosthern Junior College students scored significantly lower than did Weir's sample, at the .01 level of significance. This raises the question of whether there is something in the ethnic background that significantly influences the "self-concept" of the student. Mennonites are an ethnic minority group in Canada; studies on minority groups (Elliott, 1971) seem to indicate that membership in a minority group often leaves its "mark of oppression" in the form of a low opinion of self and group, and an inflated view of the worth of the majority group. Kurokawa (in Elliott, 1971) studied the Mennonite Children in Waterloo County, Ontario; he found this syndrome of "self-hate" to be quite prevalent. He also found that there was considerable value-conflict, and that as a result of this, many children found it difficult to know how to related to the "outside" world. Any deviation from the group, especially from the expectations of the religious authorities, often was accompanied by strong feelings of guilt. Only further research and comparison of the various Mennonite groups, particularly in view of the various degrees

to which acculturation has taken place in the various branches of the Mennonite group, can clarify to what degree this "minority group status" is still felt.

When the females of RJC were compared with the females in Weir's sample, it was found that the RJC females were significantly more Time Competent (.02 level), and scored higher on Existentiality (.001 level). The RJC females were significantly lower on the scale measuring the acceptance of self-actualizing values (.05 level). As was noted above for the entire group comparison, the RJC females scored lower than Weir's group on Self-Regard (.01 level), and on the Constructive View of the Nature of Man (.001 level).

When the RJC males were compared to the males in Weir's sample it was found that the RJC males scored significantly higher on Time Competence (.001 level), Existentiality (.01 level), and on Synergy (.05 level).

The two scores that are higher in RJC for all three comparisons are Time Competence and Existentiality; Shostrom indicates that living in the present, and being aware of one's own needs and feelings is important in "self-actualization".

In the POI manual Shostrom describes the Self-Actualizing Values and the Existentiality scales as complementary. SAV measures the degree to which one's values are like self-actualizing people. Ext measures the degree of flexibility in the application of values to living. Rosthern Junior College had a lower score on SAV than did the high school sample used to establish the norms, and, the RJC score was also lower than that of the "non-self-actualizing" mean published. However, their mean score on Ex (the complementary scale) was significantly higher than that of the high school norm established. This means, as mentioned previously, that the students at Rosthern Junior College

seem to apply basic principles with some flexibility, with an awareness of what the situation in its context demands. The students are in a fairly close-knit environment, with ample opportunity for social interaction with students who share similar beliefs and a similar background. It is the divergence of the scores on these two complementary scales that leads to the question of whether there are some basic differences between Shostrom's concept of the "self-actualizing" person, and the concepts held by these Mennonite students of the values that should be held by a mature person.

When a comparison was made, within the Rosthern Junior College population, to determine whether there was a male-female difference in self-actualization, it was found that there were no significant differences. Although there were no sex differences at the .05 level, there are trends approaching significance. RJC females scored somewhat lower than RJC males on Self-Regard ($p=.11$) and on the Constructive View of the Nature of Man ($p=.15$).

What degree of severity is characteristic of students in Rosthern Junior College in the evaluating of human behavior in some typical life situations? On the 30-item Situational Appraisal Inventory, where items were rated on a 0-7 scale according to severity, the Rosthern Junior College received a mean of 143.97. The average mean score for each item is therefore 4.80. With 14 items rated as "5" or more in severity of evaluation, it was clear that there was a high agreement in the relative wrongness of the behaviors described. The factor analysis on the SAI did not produce very distinct factors; however, it did suggest that there were two main areas where students in Rosthern Junior College were quite

severe in their evaluation: deviance from the accepted norms in sexual behavior, and working for personal gain at the expense of other people.

It was discovered in this study that, although there was no significant difference between male-female scores in the Kohlberg Moral Development Score, females were significantly more strict in evaluating behaviors described in the SAI, at the .03 level of significance. Out of the 30 items, females rated 7 items with significantly more severity than did the males. The females evaluated any questions dealing with sexual gratification (outside of the marriage relationship), or with physical aggression, with more severity than the males did. These questions relating to sex were also rated quite severely in Pittel's study, particularly by the females. There was a trend in the direction of significance for the RJC females, who rate these SAI behaviors with considerable severity, to score lower than the RJC males on Self-Regard ($p=.11$) and on the Constructive View of the Nature of Man ($p=.15$), both subscales of the POI. Thus, further study is suggested to determine whether this tendency, that is, the tendency of females to evaluate self and others quite severely, is a factor of the religious or ethnic background, or whether this male-female difference goes beyond this group. Kohlberg (1963b) seems to anticipate a male-female difference in this area:

Terman and Miles found that girls' indignation was directed more toward trivial forms of deviance which personally irritated them, while boys' indignation was directed more toward major offenses against moral rules.

They also found that the "sympathy of the female appears personal rather than abstract"... Girls are expected to be, and expect themselves to be, more obedient, more fearful, more affectionate, and more dependent. Boys are expected to be more physically aggressive . . .

Although this would seem to be a logical explanation for this difference, the intensity and consistent direction of differences in various scores might suggest a possible male-female difference within the Mennonite ethnic group.

Although there are no published norms available for a high school sample in the study of severity of evaluation, as measured by the Situational Appraisal Inventory, it is stated by Pittel and Mendelsohn that age is not too significant in this type of study. In Pittel's study it was found that the females rated the items with more severity at the .05 level of significance; in the Rosthern Junior College study it was found that the females rated items with more severity at the .03 level of significance. Furthermore, the RJC males rated the items with more severity than did the Pittel males at the .01 level of significance. The RJC females rated the items with more severity than did the Pittel females at the .001 level of significance. It appears from this that the population at Rosthern Junior College has a fairly strict code of ethics.

The last question presented in this study focused on the possibility of correlations among the level of moral development, self-actualization, and severity of evaluation.

1. Kohlberg's Moral Maturity Score correlated positively

with only the religious question regarding attendance at church. However, since this sample did not have any stage 5 or stage 6 scorers, it was not possible to make any comments as to how stages 5 and 6 subjects would evaluate the Situational Appraisal Inventory behaviors, or whether this would make any change in the pattern suggested in this study.

2. Since there were no subjects at stages 5 or 6 it was not possible to comment on whether Kohlberg's morally mature person is Shostrom's "self-actualized" person. However, it is interesting to speculate about differences, had the significance level been set at .15. Several important trends would be evident:

- a. There would be a positive correlation between the Moral Maturity Score, and acceptance of Self-Actualizing Values ($p=.09$), and, between the MMS and the more positive view of the Nature of Man ($p=.07$).
- b. There is a negative correlation between the MMS and Existentiality ($p=.06$), and, between the MMS and Self-Acceptance ($p=.10$).
- c. There is a positive correlation between the higher Variation Score and the Inner-Directed Ratio ($p=.14$), between the higher Variation Score and acceptance of Self-Actualizing Values ($p=.16$), and, between the higher Variation Score and the more positive view of the Nature of Man ($p=.12$).

On the basis of the above summary it appears that Kohlberg's morally mature person could be "self-actualized" in terms of values, but possesses less flexibility and Self-Acceptance.

3. Neither the Inner-Directed Scale nor the Time Competent Scale in the POI correlated significantly with the SAI or the Moral Maturity Score. As mentioned previously, the Inner-Directed person could be the man of principles at Level III, but this study had no subjects scoring at this level.

4. The greater the involvement of the subjects in extra-curricular activities the more likely they were to use the Kohlberg stages of reasoning at the more complex levels. This point seems to emphasize the fact that role-taking opportunities are necessary for moral development to occur.

5. The length of stay in residence correlated positively with the POI subscales of Self-Actualizing Values and the Nature of Man. Furthermore, the length of stay in residence also correlated negatively with Other-Directedness. It could be suggested that the opportunities for close social interaction for an extensive period of time is in some way related to the acceptance of independent selves. Yet, not enough variables were controlled to determine whether living in residence significantly accelerates the maturation process.

There are several issues in this study that deserve further consideration. First of all, it was pointed out earlier that the students at Rosthern Junior College tended to stabilize at Level II. Kohlberg indicated in his writings that most of the adult population in the western world does indeed function at this level. His hierarchy sets up Level III as the ideal. At this point it is essential to clarify whether or not, for students like the students from Rosthern Junior College who come from a fairly close-knit group, the values postulated by Kohlberg are at variance with the values

of the group.

It was interesting to find that students at Rosthern Junior College had a significantly higher Time Competence score than a comparable high school sample, and yet had a lower Inner-Directedness score, which is the other major aspect of self-actualization. Once again further study is necessary to determine whether, in this population, the group is considered more important than the individual, and whether this is indeed what the people of the group see as the ideal for them. Conclusions cannot be stated at this point, since the population had no "self-actualizers" or stage 5 and stage 6 subjects.

It is also important to consider that many of the evaluations on the SAI questions correlated positively with the four religious questions, but that the SAI and the religious questions correlated negatively with the POI. If there are some basic points in the POI that contradict the religious values of the school, then the instrument may just be indicating clearly that there is a basic disagreement, rather than the degree of "self-actualization" attained. Several comments added to the questionnaires indicated that some students did feel that the Personal Orientation Inventory was too "man-centered"--they felt that the questionnaire did not leave any room for the importance of God in man's existence.

As stated previously, it would be interesting and valuable, to explore in more detail the possibility of male-female differences on the Personal Orientation Inventory being influenced by the ethnic view of the sexes. Why is it, that there is a trend for RJC males to score higher on Self-

Regard and on the Constructive View of the Nature of Man?

Some of these questions have been raised in other studies, using different instruments. It is of interest to compare this study with the study done by I. Thiessen (1963, 1966, 1969) on a similar ethnic-religious population in Manitoba. Thiessen used the Edwards' Personal Preference Schedule to study the significant needs of this groups. In Thiessen's sample the subjects had a high Nurturance Score (helping friends in trouble, assisting the less fortunate, etc.). Would these people be the high stage 3 scorers in Kohlberg's terms? Secondly, Thiessen found that her subjects had a high Deference Score (getting suggestions, accepting leadership of others, etc.) and a low Dominance Score (less interest in leadership). This could be related to Kohlberg's definition of stage 4 scorers. Lastly, Thiessen refers to the high need for abasement in her groups (to feel guilty, to accept blame, to feel timid in the presence of superiors, etc.). How would this relate to the finding in the Rosthern Junior College study that the Mennonites scored significantly lower than the published norms on the Self-Regard scale on the POI?

Another study of this nature in a similar school would certainly be valuable in further clarifying issues raised by this descriptive study.

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APPENDIX A

KOHLBERG MORAL DEVELOPMENT SCALE

Number _____ School _____ Age _____ Sex _____

DECISION STORIES AND QUESTIONS

On the following pages you will find several stories each of which are followed by some questions. The purpose of these stories and questions is to get at your opinions and ideas. Please write down all the ideas or feelings they bring to mind rather than giving "yes" or "no" answers. Just writing "yes" or "no" is definitely not an adequate answer. You should always give your reasons for your answer.

You are to write your answers in the spaces provided following each question. If you need more space you may write on the back of the page, but if you do, make sure you specify which question you are answering. You should be able to answer most of the questions in the space that is provided.

Remember that this is not a test in the usual sense. There are no right or wrong answers. There can only be different ideas and opinions about these stories. So, do not spend a long time thinking about how to answer any one question, but simply write down what your opinions and ideas are about it.

In Europe a women was near death from a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging ten times what the drug cost him to make. He paid \$200 for the radium and charged \$2,000 for a small dose of the drug. The sick women's husband, Heinz, went to everyone he knew to borrow money, but he could only get together about \$1,000 which is half of what it cost. He told the druggist that his wife was dying and asked him to sell it cheaper or let him pay later. But the druggist said "No, I discovered the drug and I'm going to make money from it." So Heinz got desperate and broke into the man's store to steal the drug for his wife.

Should Heinz have done that? Was it actually wrong or right? Why?

Is it a husband's duty to steal the drug for his wife if he can get it no other way? Would a good husband do it?

Did the druggist have the right to charge that much when there was no law actually setting a limit to the price? Why?

Answer the next question only if you think he should steal the drug.

If the husband does not feel very close or affectionate to his wife, should he still steal the drug? Why?

* * *

The drug didn't work, and there was no other treatment known to medicine which could save Heinz's wife, so the doctor knew that she had only about 6 months to live. She was in terrible pain, but she was so weak that a good dose of a pain-killer like ether or morphine would make her die sooner. She was delirious and almost crazy with pain, and in her calm periods, she would ask the doctor to give her enough ether to kill her. She said she couldn't stand the pain and she was going to die in a few months anyway.

Should the doctor do what she asks and give her the drug that will make her die? Why?

Some countries have a law that doctors should put away a suffering person who will die anyway. Should the doctor do it in that case? Why?

The doctor finally decided to kill the woman to put her out of her pain, so he did it without consulting the law. The police found out and the doctor was brought up on a charge of murder even though they knew the woman had asked him. What punishment should the judge give the doctor? Why?

Would it be right or wrong to give the doctor the death sentence? Do you believe that the death sentence should be given in some cases?

* * *

While all this was happening, Heinz was in jail for breaking in and trying to steal the medicine. He had been sentenced for 10 years. But after a couple of years, he escaped from the prison and went to live in another part of the country under a new name. He saved money and slowly built up a big factory. He gave his workers the highest wages and used most of his profits to build a hospital for work in curing cancer.

Twenty years had passed when a tailor recognized the factory owner as being Heinz, the escaped convict whom the police had been looking for back in his home town.

Should the tailor report Heinz to the police? Would it be right or wrong to keep it quiet? Why?

Is it a citizen's duty to report Heinz? Would a good citizen? Why?

If Heinz was a good friend of the tailor, would that make a difference? Why?

Should Heinz be sent back to jail by the judge? Why?

* * *

Joe is a 14-year-old boy who wanted to go to camp very much. His father promised him he could go if he saved up the money for it himself. So Joe worked hard at his paper route and saved up the \$40 it cost to go to camp and a little besides. But just before camp was going to start, his father changed his mind. Some of his friends decided to go on a special fishing trip, and Joe's father was short of the money it would

cost. So he told Joe to give him the money he had saved from the paper route. Joe didn't want to give up going to camp, so he thought of refusing to give his father the money.

Should Joe refuse to give his father the money? Why?

Does his father have the right to tell Joe to give him the money? Why?

Does giving the money have anything to do with being a good son? Why?

Which is worse, a father breaking a promise to his son or a son breaking a promise to his father? Why?

* * *

Several years later, two grown up brothers had gotten into serious trouble. They were secretly leaving town in a hurry and needed money. Alex, the older one, broke into a store and stole \$500. Joe, the younger one, went to a retired old man who was known to help people in town. Joe told the the man that he was very sick and needed \$500 to pay for the operation.

Really he wasn't sick at all, and he had no intention of paying the man back. Although the man didn't know Joe very well, he loaned him the money. So Joe and Alex skipped town, each with \$500.

If you had to say who did worse, would you say Al did worse to break in the store and steal \$500 or Joe did worse to borrow the \$500 with no intentions of paying it back? Why?

Would you feel like a worse person stealing like Al or cheating like Joe? Why?

Who would feel worse, the storeowner who was robbed or the man who was cheated out of a loan? Why?

Which should the law be more harsh or strong against, stealing like Al or cheating like Joe? Why?

APPENDIX B

PERSONAL ORIENTATION INVENTORY

Everett L. Shostrom, Ph.D.

Directions

This inventory consists of pairs of numbered statements. Read each statement and mark which statement most consistently applies to you.

1. a. I am bound by the principle of fairness.
b. I am not absolutely bound by the principles of fairness.
2. a. When a friend does me a favor, I feel that I must return it.
b. When a friend does me a favor, I do not feel that I must return it.
3. a. I feel I must always tell the truth.
b. I do not always tell the truth.
4. a. No matter how hard I try, my feelings are often hurt.
b. If I manage the situation right, I can avoid being hurt.
5. a. I feel that I must strive for perfection in everything that I undertake.
b. I do not feel that I must strive for perfection in everything that I undertake.

6. a. I often make my decisions spontaneously.
 b. I seldom make my decisions spontaneously.
7. a. I am afraid to be myself.
 b. I am not afraid to be myself.
8. a. I feel obligated when a stranger does me a favor.
 b. I do not feel obligated when a stranger does me a favor.
9. a. I feel that I have a right to expect others to do what I want of them.
 b. I do not feel that I have a right to expect others to do what I want of them.
10. a. I live by values which are in agreement with others.
 b. I live by values which are primarily based on my own feelings.
11. a. I am concerned with self-improvement at all times.
 b. I am not concerned with self-improvement at all times.
12. a. I feel guilty when I am selfish.
 b. I don't feel guilty when I am selfish.
13. a. I have no objection to getting angry.
 b. Anger is something I try to avoid.
14. a. For me, anything is possible if I believe in myself.
 b. I have a lot of natural limitations even though I believe in myself.

15. a. I put others' interests before my own.
b. I do not put others' interests before my own.
16. a. I sometimes feel embarrassed by compliments.
b. I am not embarrassed by compliments.
17. a. I believe it is important to accept others as they are.
b. I believe it is important to understand why others are as they are.
18. a. I can put off until tomorrow what I ought to do today.
b. I don't put off until tomorrow what I ought to do today.
19. a. I can give without requiring the other person to appreciate what I give.
b. I have a right to expect the other person to appreciate what I give.
20. a. My moral values are dictated by society.
b. My moral values are self-determined.
21. a. I do what others expect of me.
b. I feel free to not do what others expect of me.
22. a. I accept my weaknesses.
b. I don't accept my weaknesses.
23. a. In order to grow emotionally, it is necessary to know why I act as I do.

- b. In order to grow emotionally, it is not necessary to know why I act as I do.
-
- 24. a. Sometimes I am cross when I am not feeling well.
b. I am hardly ever cross.
-
- 25. a. It is necessary that others approve of what I do.
b. It is not always necessary that others approve of what I do.
-
- 26. a. I am afraid of making mistakes.
b. I am not afraid of making mistakes.
-
- 27. a. I trust the decisions I make spontaneously.
b. I do not trust the decisions I make spontaneously.
-
- 28. a. My feelings of self-worth depend on how much I accomplish.
b. My feelings of self-worth do not depend on how much I accomplish.
-
- 29. a. I fear failure.
b. I don't fear failure.
-
- 30. a. My moral values are determined, for the most part, by the thoughts, feelings and decisions of others.
b. My moral values are not determined, for the most part, by the thoughts, feelings and decisions of others.
-
- 31. a. It is possible to live life in terms of what I want to

do.

b. It is not possible to live life in terms of what I want to do.

32. a. I can cope with the ups and downs of life.

b. I cannot cope with the ups and downs of life.

33. a. I believe in saying what I feel in dealing with others.

b. I do not believe in saying what I feel in dealing with others.

34. a. Children should realize that they do not have the same rights and privileges as adults.

b. It is not important to make an issue of rights and privileges.

35. a. I can "stick my neck out" in my relations with others.

b. I avoid "sticking my neck out" in my relations with others.

36. a. I believe the pursuit of self-interest is opposed to interest in others.

b. I believe the pursuit of self-interest is not opposed to interest in others.

37. a. I find that I have rejected many of the moral values I was taught.

b. I have not rejected any of the moral values I was taught.

38. a. I live in terms of my wants, likes, dislikes and values.
b. I do not live in terms of my wants, likes, dislikes and values.
39. a. I trust my ability to size up a situation.
b. I do not trust my ability to size up a situation.
40. a. I believe I have an innate capacity to cope with life.
b. I do not believe I have innate capacity to cope with life.
41. a. I must justify my actions in the pursuit of my own interests.
b. I need not justify my actions in the pursuit of my own interests.
42. a. I am bothered by fears of being inadequate.
b. I am not bothered by fears of being inadequate.
43. a. I believe that man is essentially good and can be trusted.
b. I believe that man is essentially evil and cannot be trusted.
44. a. I live by the rules and standards of society.
b. I do not always need to live by the rules and standards of society.
45. a. I am bound by my duties and obligations to others.
b. I am not bound by my duties and obligations to others.

46. a. Reasons are needed to justify my feelings.
b. Reasons are not needed to justify my feelings.
47. a. There are times when just being silent is the best way
I can express my feelings.
b. I find it difficult to express my feelings by just being
silent.
48. a. I often feel it necessary to defend my past actions.
b. I do not feel it necessary to defend my past actions.
49. a. I like everyone I know.
b. I do not like everyone I know.
50. a. Criticism threatens my self-esteem.
b. Criticism does not threaten my self-esteem.
51. a. I believe that knowledge of what is right makes people
act right.
b. I do not believe that knowledge of what is right nece-
sarily makes people act right.
52. a. I am afraid to be angry at those I love.
b. I feel free to be angry at those I love.
53. a. My basic responsibility is to be aware of my own needs.
b. My basic responsibility is to be aware of others' needs.
54. a. Impressing others is most important.
b. Expressing myself is most important.

55. a. To feel right, I need always to please others.
b. I can feel right without always having to please others.
56. a. I will risk a friendship in order to say or do what I believe is right.
b. I will not risk a friendship just to say or do what is right.
57. a. I feel bound to keep the promises I make.
b. I do not always feel bound to keep the promises I make.
58. a. I must avoid sorrow at all costs.
b. It is not necessary for me to avoid sorrow.
59. a. I strive always to predict what will happen in the future.
b. I do not feel it necessary always to predict what will happen in the future.
60. a. It is important that others accept my point of view.
b. It is not necessary for others to accept my point of view.
61. a. I only feel free to express warm feelings to my friends.
b. I feel free to express both warm and hostile feelings to my friends.
62. a. There are many times when it is more important to express feelings than to carefully evaluate the situation.

- b. There are very few times when it is more important to express feelings than to carefully evaluate the situation.
63. a. I welcome criticism as an opportunity for growth.
b. I do not welcome criticism as an opportunity for growth.
64. a. Appearances are all-important.
b. Appearances are not terribly important.
65. a. I hardly ever gossip.
b. I gossip a little at times.
66. a. I feel free to reveal my weaknesses among friends.
b. I do not feel free to reveal my weaknesses among friends.
67. a. I should always assume responsibility for other people's feelings.
b. I need not always assume responsibility for other people's feelings.
68. a. I feel free to be myself and bear the consequences.
b. I do not feel free to be myself and bear the consequences.
69. a. I already know all I need to know about my feelings.
b. As life goes on, I continue to know more and more about my feelings.
70. a. I hesitate to show my weaknesses among strangers.
b. I do not hesitate to show my weaknesses among strangers.

71. a. I will continue to grow only by setting my sights on a high-level, socially approved goal.
b. I will continue to grow best by being myself.
72. a. I accept inconsistencies within myself.
b. I cannot accept inconsistencies within myself.
73. a. Man is naturally cooperative.
b. Man is naturally antagonistic.
74. a. I don't mind laughing at a dirty joke.
b. I hardly ever laugh at a dirty joke.
75. a. Happiness is a by-product in human relationships.
b. Happiness is an end in human relationships.
76. a. I only feel free to show friendly feelings to strangers.
b. I feel free to show both friendly and unfriendly feelings to strangers.
77. a. I try to be sincere but I sometimes fail.
b. I try to be sincere and I am sincere.
78. a. Self-interest is natural.
b. Self-interest is unnatural.
79. a. A neutral party can measure a happy relationship by observation.
b. A neutral party cannot measure a happy relationship by observation.

80. a. For me, work and play are the same.
b. For me, work and play are opposites.
81. a. Two people will get along best if each concentrates on pleasing the other.
b. Two people can get along best if each person feels free to express himself.
82. a. I have feelings of resentment about things that are past.
b. I do not have feelings of resentment about things that are past.
83. a. I like only masculine men and feminine women.
b. I like men and women who show masculinity as well as femininity.
84. a. I actively attempt to avoid embarrassment whenever I can.
b. I do not actively attempt to avoid embarrassment.
85. a. I blame my parents for a lot of my troubles.
b. I do not blame my parents for my troubles.
86. a. I feel that a person should be silly only at the right time and place.
b. I can be silly when I feel like it.
87. a. People should always repent their wrong-doings.
b. People need not always repent their wrong-doings.

88. a. I worry about the future.
b. I do not worry about the future.
89. a. Kindness and ruthlessness must be opposites.
b. Kindness and ruthlessness need not be opposites.
90. a. I prefer to save good things for future use.
b. I prefer to use good things now.
91. a. People should always control their anger.
b. People should express honestly-felt anger.
92. a. The truly spiritual man is sometimes sensual.
b. The truly spiritual man is never sensual.
93. a. I am able to express my feelings even when they sometimes result in undesirable consequences.
b. I am unable to express my feelings if they are likely to result in undesirable consequences.
94. a. I am often ashamed of some of the emotions that I feel bubbling up within me.
b. I do not feel ashamed of my emotions.
95. a. I have had mysterious or ecstatic experiences.
b. I have never had mysterious or ecstatic experiences.
96. a. I am orthodoxly religious.
b. I am not orthodoxly religious.
97. a. I am completely free of guilt.

- b. I am not free of guilt.
98. a. I have a problem in fusing sex and love.
- b. I have no problem in fusing sex and love.
99. a. I enjoy detachment and privacy.
- b. I do not enjoy detachment and privacy.
100. a. I feel dedicated to my work.
- b. I do not feel dedicated to my work.
101. a. I can express affection regardless of whether it is returned.
- b. I cannot express affection unless I am sure it will be returned.
102. a. Living for the future is as important as living for the moment.
- b. Only living for the moment is important.
103. a. It is better to be yourself.
- b. It is better to be popular.
104. a. Wishing and imagining can be bad.
- b. Wishing and imagining are always good.
105. a. I spend more time preparing to live.
- b. I spend more time actually living.
106. a. I am loved because I give love.
- b. I am loved because I am lovable.

107. a. When I really love myself, everybody will love me.
b. When I really love myself, there will still be those who won't love me.
108. a. I can let other people control me.
b. I can let other people control me if I am sure they will not continue to control me.
109. a. As they are, people sometimes annoy me.
b. As they are, people do not annoy me.
110. a. Living for the future gives my life its primary meaning.
b. Only when living for the future ties into living for the present does my life have meaning.
111. a. I follow diligently the motto, "Don't waste your time."
b. I do not feel bound by the motto, "Don't waste your time."
112. a. What I have been in the past dictates the kind of person I will be.
b. What I have been in the past does not necessarily dictate the kind of person I will be.
113. a. It is important to me how I live in the here and now.
b. It is of little importance to me how I live in the here and now.
114. a. I have had an experience where life seemed just perfect.

- b. I have never had an experience where life seemed just perfect.
-
- 115. a. Evil is the result of frustration in trying to be good.
b. Evil is an intrinsic part of human nature which fights good.
-
- 116. a. A person can completely change his essential nature.
b. A person can never change his essential nature.
-
- 117. a. I am afraid to be tender.
b. I am not afraid to be tender.
-
- 118. a. I am assertive and affirming.
b. I am not assertive and affirming.
-
- 119. a. Women should be trusting and yielding
b. Women should not be trusting and yielding.
-
- 120. a. I see myself as others see me.
b. I do not see myself as others see me.
-
- 121. a. It is a good idea to think about your greatest potential.
b. A person who thinks about his greatest potential gets conceited.
-
- 122. a. Men should be assertive and affirming.
b. Men should not be assertive and affirming.
-
- 123. a. I am able to risk being myself.

b. I am not able to risk being myself.

124. a. I feel the need to be doing something significant all of the time.

b. I do not feel the need to be doing something significant all of the time.

125. a. I suffer from memories.

b. I do not suffer from memories.

126. a. Men and women must be both yielding and assertive.

b. Men and women must not be both yielding and assertive.

127. a. I like to participate actively in intense discussions.

b. I do not like to participate actively in intense discussions.

128. a. I am self-sufficient.

b. I am not self-sufficient.

129. a. I like to withdraw from others for extended periods of time.

b. I do not like to withdraw from others for extended periods of time.

130. a. I always play fair.

b. Sometimes I cheat a little.

131. a. Sometimes I feel so angry I want to destroy or hurt others.

- b. I never feel so angry that I want to destroy or hurt others.
132. a. I feel certain and secure in my relationships with others.
b. I feel uncertain and insecure in my relationships with others.
133. a. I like to withdraw temporarily from others.
b. I do not like to withdraw temporarily from others.
134. a. I can accept my mistakes.
b. I cannot accept my mistakes.
135. a. I find some people who are stupid and uninteresting.
b. I never find any people who are stupid and uninteresting.
136. a. I regret my past.
b. I do not regret my past.
137. a. Being myself is helpful to others.
b. Just being myself is not helpful to others.
138. a. I have had moments of intense happiness when I felt like I was experiencing a kind of ecstasy or bliss.
b. I have not had moments of intense happiness when I felt like I was experiencing a kind of bliss.
139. a. People have an instinct for evil.
b. People do not have an instinct for evil.

140. a. For me, the future usually seems hopeful.
b. For me, the future often seems hopeless.
141. a. People are both good and evil.
b. People are not both good and evil.
142. a. My past is a stepping stone for the future.
b. My past is a handicap to my future.
143. a. "Killing time" is a problem for me.
b. "Killing time" is not a problem for me.
144. a. For me, past, present and future is in meaningful continuity.
b. For me, the present is an island, unrelated to the past and future.
145. a. My hope for the future depends on having friends.
b. My hope for the future does not depend on having friends.
146. a. I can like people without having to approve of them.
b. I cannot like people unless I also approve of them.
147. a. People are basically good.
b. People are not basically good.
148. a. Honesty is always the best policy.
b. There are times when honesty is not the best policy.
149. a. I can feel comfortable with less than a perfect performance.

b. I feel uncomfortable with anything less than a perfect performance.

150. a. I can overcome any obstacles as long as I believe in myself.

b. I cannot overcome every obstacle even if I believe in myself.

APPENDIX C

SITUATIONAL APPRAISAL INVENTORY

Number _____ School _____ Age _____ Sex _____

FORM J

DIRECTIONS: You will be asked to rate the behavior of a person named John in a number of situations. In each of these, John does something which might be considered wrong. The situations presented have been selected to represent a wide range of behaviors--some apparently petty and trivial and some apparently quite serious.

Read each of these situations carefully, taking into account all of the facts which lead up to the final act performed by John. Then, rate each of the behaviors by placing the appropriate scale number from 1 to 7 on the line to the left of each item, according to the following scale:

:	1	:	2	:	3	:	4	:	5	:	6	:	7	:
													least	most
													wrong	wrong

If you feel that the behavior is extremely wrong place a 7 on the line to the left of the item. If you feel that the behavior is not very wrong at all place a 1 on the line to the left of the item. For items which you feel to be between these extremes select the scale value which

corresponds best to your judgment of how wrong the behavior is. If you feel that the behavior in the situation is right, place a 0 on the line to the left of the item. One final point: please use only whole numbers in your ratings.

A FEW REMINDERS

It is your appraisal of these acts that is important; not the way you think others might judge them.

Although the name John appears in each of the items, they are to be judged separately. Do not let your judgments of any item depend on previous information you have received about the fictitious John.

Although other people are sometimes mentioned in the situations, it is only the behavior of John that is to be rated.

Thank you for your cooperation. Any comments you wish to make on the test as a whole or on any of the items in particular will be welcomed. Feel free to write any comments on the back of any of the pages.

- _____ 1. While at a crowded cocktail party John accidentally drops a cigarette on the rug and burns a hole in it. He walks away from the spot and tell no one about it.
- _____ 2. John's boss has a habit of making him stay a few minutes overtime each day and does not offer to pay him for his time. Whenever he has the opportunity John manages to come in a few minutes late in the morning or takes a longer coffee break than he is supposed to.
- _____ 3. Although John is a good student he relies on the published notes available on campus and spends little time organizing his own material.
- _____ 4. John and his fiancée had never engaged in sexual intercourse because they were afraid of the consequences. To satisfy their mutual desires they engage in mutual masturbation.
- _____ 5. John is the son of a wealthy and influential family. He falls in love with a Negro girl and plans to marry her. When his family hears of this they offer to give him a trip to Europe to help him forget about the girl. He accepts their offer.
- _____ 6. John is walking past the door to his sister's room when he notices her lying naked on the bed. This sight arouses him and he stays by her door and secretly watches her.

- _____ 7. John has heard that Mary has a reputation for being sexually promiscuous and so he asks her out on a date just for the purpose of having relations with her.
- _____ 8. John loans a dollar to one of his friends. The friend seems to forget about it and John does not want to seem miserly by asking for it. One night at a party his friend gets drunk and John takes him home. He thinks about the dollar and takes it from his friend's wallet.
- _____ 9. John accidentally discovers that his mother is having an affair. He confronts her with this knowledge and uses this to get all the things from her that he always wanted.
- _____ 10. John is taking an examination for which he is well prepared. He glances around him and notices that the other students are copying directly from their notes. He realizes that he will not be able to do as well as those who are cheating and so he opens his own notebook and begins to copy from his notes.
- _____ 11. When John goes to the Smorgasbord for dinner he always eats more food than he would ordinarily since he doesn't have to pay extra for it.
- _____ 12. One day John discovers his father giving a merciless beating to his younger sister. He tries to pull his father away and when he is unable to stop him he hits his father over the head with a paperweight.

- ____13. John had previously thought that gambling was bad but when he went to Reno and saw someone hit the jackpot he decided to try his luck.
- ____14. John is married to a woman whom he loves greatly. Unfortunately she is frigid and is unable to respond to him sexually. He begins to have relations with another woman to satisfy his sexual needs.
- ____15. John has an argument with his father. Afterward he realizes that he is wrong but does not apologize to his father because he knows that his father will give him a lecture on how to mind his ways.
- ____16. John believes that the Federal income tax laws are not constitutional and has repeatedly written to his congressman to have them changed. While making a study of these laws he finds a loophole which will allow him to pay only a small fraction of the taxes he is presently paying. He realizes that this will not be exactly legal but he is sure that he would escape detection. He takes advantage of this loophole when he makes out his tax return.
- ____17. John finds a wallet containing a few dollars lying on the sidewalk. Since no one is in sight he pockets the money and leaves the wallet where he found it.
- ____18. John has been in the army for three years and has not been able to get home to see his wife. To satisfy his sexual needs he has intercourse with a prostitute.

- ___19. John receives a traffic ticket for speeding although he has not really gone over the speed limit. The next time he has the opportunity he breaks the speeding laws deliberately when he is sure the police are not around.
- ___20. John has been going with a girl for a long time when he discovers that she has been secretly going out with one of his best friends. He begins to spread rumors which are entirely untrue and which he knows will hurt her.
- ___21. Although John does not have any love or respect for his parents he continues to take their money for his education and living expenses because he feels they owe it to him.
- ___22. John is sexually attracted to a girl he has been dating. One night on a date he tells her that he loves her although he really does not in order to have relations with her.
- ___23. Although he knows that it is bad for his health John continues to smoke because he has gotten into the habit of smoking.
- ___24. Before he left for college John promised his parents that he would continue attending church services. He attends the first service of the year at the church of his faith and is disappointed in the minister. He stops going to services but tells his parents that he is still going.

- ____ 25. John has been working in an office for two years and knows that all of the other employees are using office supplies and postage stamps for their own personal affairs. John feels that it is wrong to take advantage of the boss in this way but begins to use supplies himself since no one seems to mind.
- ____ 26. John finds that a hub cap has been stolen from his car and he gets an estimate for its replacement. The man who gives him the estimate suggests that he bill the insurance company for the price of all four hub caps and that they split the profit. Since John realizes that this is standard operating procedure he agrees.
- ____ 27. John sees his friend beating up a man. This infuriates him so he picks up a rock and hits one of his friends with it to stop the fight.
- ____ 28. John does something which he realizes his mother will not like but he becomes angry with her when she punishes him for it.
- ____ 29. John moves from California to the deep South. Although he has not developed any strong anti-Negro prejudices he participates in segregationist activities so that he will be accepted in the community and will not suffer any loss of business.
- ____ 30. John has been dating Mary for a long time and they have never done more than neck with each other. One night they become more excited than usual and John becomes very aroused. That night he masturbates when he gets home.

APPENDIX D

GENERAL INFORMATION SHEET

Identification: _____

Age: _____ Sex: _____ Grade: _____ Approximate Grade Average: _____

How many years have you attended this school? _____

Where do You live?--At home _____ With friends _____

In residence _____

If you have lived in residence, how long have you lived there? _____ In what year(s) _____

Extracurricular Activities: _____

Parental religious affiliation: _____

Personal religious preference: _____

1. I attend church

- _____ every week
- _____ regularly
- _____ only on special occasions
- _____ never

2. I believe that God

- _____ definitely exists
- _____ probably exists
- _____ probably does not exist
- _____ definitely does not exist

3. Thoughts of God enter my mind

- _____ very often
- _____ frequently
- _____ occasionally
- _____ never

4. Thoughts of God influence my behavior

_____ very often

_____ frequently

_____ occasionally

_____ never

APPENDIX E

FACTOR ANALYSIS ON SITUATIONAL APPRAISAL INVENTORY

	Factor 1	Factor 2	Factor 3	Factor 4
1	0.2886	0.7134	0.1577	-0.3078
2	0.1053	0.7436	0.4008	-0.1175
3	-0.1636	0.8828	-0.0069	0.0838
4	-0.0132	0.1171	0.0209	0.6820
5	0.0008	-0.1541	-0.3704	0.7211
6	0.0868	0.2275	0.0907	0.5676
7	0.3827	-0.3190	0.1349	0.5839
8	0.7946	-0.0255	-0.0659	-0.1202
9	0.9297	-0.2944	-0.4247	0.0410
10	0.6257	0.0690	0.2842	0.0165
11	-0.1055	0.5762	0.3602	0.2333
12	0.1761	0.2933	0.7037	-0.0345
13	-0.0685	0.5558	0.5800	0.1844
14	0.0667	0.2889	0.7233	-0.0826
15	0.4770	0.4897	-0.0514	-0.0229
16	0.4178	0.3529	0.0620	0.1681
17	0.5624	0.2253	-0.0357	0.1668
18	0.1023	-0.0708	0.3786	0.6381
19	0.6457	0.3098	0.2105	-0.1789
20	0.7392	0.0433	-0.2924	-0.0004
21	0.6066	-0.1344	0.0651	-0.0166
22	0.5299	0.0182	0.2214	0.0656
23	0.2297	0.4055	0.2992	0.2261
24	0.5323	0.3341	0.3019	0.0428
25	0.5418	0.1113	0.2230	0.0634
26	0.7497	-0.1343	-0.1428	0.1464
27	0.4689	-0.0849	0.1724	0.1478
28	0.6330	0.3545	-0.1115	-0.1712
29	0.5320	-0.1909	-0.1426	0.1401
30	-0.0926	0.2147	0.1586	0.7495

Pattern on Primary

1.27009
1.22244
1.13283
1.19727

APPENDIX F

KEY TO VARIABLES IN THE CORRELATION TABLE

1. Sex--Female=1, Male =2
2. Length of stay in residence
3. Parental Religious Affiliation--stated=2, none stated=1
4. Personal Religious Affiliation--stated=2, none stated=1
5. Years attended at Rosthern Junior College
6. Age
7. Grade
8. Approximate Grade Average
9. Verbal Reasoning +Numerical Ability Percentile Score (DAT)
10. Abstract Reasoning Score (DAT)
11. Amount of involvement in extracurricular activities--
number of activities
12. Religious question #1--I attend church
 - 4 every week
 - 3 regularly
 - 2 only on special occasions
 - 1 never
13. Religious question #2--I believe that God
 - 4 definitely exists
 - 3 probably exists
 - 2 probably does not exist
 - 1 definitely does not exist

14. Religious question #3--Thoughts of God enter my mind

- 4 very often
- 3 frequently
- 2 occasionally
- 1 never

15. Religious question #4--Thoughts of God influence my behavior

- 4 very often
- 3 frequently
- 2 occasionally
- 1 never

16-31. Personal Orientation Inventory

- 16. Time Competence Ratio
- 17. Inner-Directedness Ratio
- 18. Time Incompetence
- 19. Time Competence
- 20. Other-Directedness
- 21. Inner-Directedness
- 22. Self-Actualizing Value
- 23. Existentiality
- 24. Feeling Reactivity
- 25. Spontaneity
- 26. Self-Regard
- 27. Self-Acceptance
- 28. Nature of Man, Constructive
- 29. Synergy
- 30. Acceptance of Aggression
- 31. Capacity for Warmth

32-61. Situational Appraisal Inventory Items #1-30
(most wrong=7)

62. Situational Appraisal Inventory Total Score

63. Kohlberg Moral Maturity Score

64. Kohlberg Variation Score

65. Kohlberg Dominant Category:

Dominant V=6

Mixed III-V=5

Dominant IV=4

Mixed III-IV=3

Dominant III=2

Mixed II-III=1

* $p < .05$

** $p < .01$

*** $p < .001$.

APPENDIX F.
CORRELATION TABLE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1	1.0000																					
2	0.6012	1.0000																				
3	-0.0158	0.2315	1.0000																			
4	-0.0750	0.3431	0.4295	1.0000																		
5	-0.1331	0.3613	0.4387	0.4377	1.0000																	
6	-0.1866	0.3855	0.4585	0.4578	0.4564	1.0000																
7	-0.2357	0.4086	0.4786	0.4779	0.4765	0.4752	1.0000															
8	-0.2816	0.4298	0.4968	0.4961	0.4947	0.4934	0.4921	1.0000														
9	-0.3246	0.4486	0.5136	0.5129	0.5115	0.5102	0.5089	0.5076	1.0000													
10	-0.3646	0.4657	0.5286	0.5279	0.5265	0.5252	0.5239	0.5226	0.5213	1.0000												
11	-0.4017	0.4810	0.5429	0.5422	0.5408	0.5395	0.5382	0.5369	0.5356	0.5343	1.0000											
12	-0.4360	0.4946	0.5555	0.5548	0.5534	0.5521	0.5508	0.5495	0.5482	0.5469	0.5456	1.0000										
13	-0.4678	0.5068	0.5667	0.5660	0.5646	0.5633	0.5620	0.5607	0.5594	0.5581	0.5568	0.5555	1.0000									
14	-0.4970	0.5178	0.5767	0.5760	0.5746	0.5733	0.5720	0.5707	0.5694	0.5681	0.5668	0.5655	0.5642	1.0000								
15	-0.5246	0.5278	0.5857	0.5850	0.5836	0.5823	0.5810	0.5797	0.5784	0.5771	0.5758	0.5745	0.5732	0.5719	1.0000							
16	-0.5506	0.5378	0.5957	0.5950	0.5936	0.5923	0.5910	0.5897	0.5884	0.5871	0.5858	0.5845	0.5832	0.5819	0.5806	1.0000						
17	-0.5750	0.5468	0.6047	0.6040	0.6026	0.6013	0.6000	0.5987	0.5974	0.5961	0.5948	0.5935	0.5922	0.5909	0.5896	0.5883	1.0000					
18	-0.5980	0.5548	0.6127	0.6120	0.6106	0.6093	0.6080	0.6067	0.6054	0.6041	0.6028	0.6015	0.6002	0.5989	0.5976	0.5963	0.5950	1.0000				
19	-0.6196	0.5618	0.6197	0.6190	0.6176	0.6163	0.6150	0.6137	0.6124	0.6111	0.6098	0.6085	0.6072	0.6059	0.6046	0.6033	0.6020	0.6007	1.0000			
20	-0.6390	0.5698	0.6279	0.6272	0.6258	0.6245	0.6232	0.6219	0.6206	0.6193	0.6180	0.6167	0.6154	0.6141	0.6128	0.6115	0.6102	0.6089	0.6076	1.0000		
21	-0.6564	0.5762	0.6351	0.6344	0.6330	0.6317	0.6304	0.6291	0.6278	0.6265	0.6252	0.6239	0.6226	0.6213	0.6200	0.6187	0.6174	0.6161	0.6148	0.6135	1.0000	
22	-0.6718	0.5816	0.6405	0.6398	0.6384	0.6371	0.6358	0.6345	0.6332	0.6319	0.6306	0.6293	0.6280	0.6267	0.6254	0.6241	0.6228	0.6215	0.6202	0.6189	0.6176	1.0000
23	-0.6854	0.5860	0.6449	0.6442	0.6428	0.6415	0.6402	0.6389	0.6376	0.6363	0.6350	0.6337	0.6324	0.6311	0.6298	0.6285	0.6272	0.6259	0.6246	0.6233	0.6220	0.6207
24	-0.6974	0.5896	0.6485	0.6478	0.6471	0.6457	0.6444	0.6431	0.6418	0.6405	0.6392	0.6379	0.6366	0.6353	0.6340	0.6327	0.6314	0.6301	0.6288	0.6275	0.6262	0.6249
25	-0.7080	0.5924	0.6513	0.6506	0.6499	0.6485	0.6472	0.6459	0.6446	0.6433	0.6420	0.6407	0.6394	0.6381	0.6368	0.6355	0.6342	0.6329	0.6316	0.6303	0.6290	0.6277
26	-0.7174	0.5948	0.6537	0.6530	0.6523	0.6509	0.6496	0.6483	0.6470	0.6457	0.6444	0.6431	0.6418	0.6405	0.6392	0.6379	0.6366	0.6353	0.6340	0.6327	0.6314	0.6301
27	-0.7258	0.5969	0.6558	0.6551	0.6544	0.6530	0.6517	0.6504	0.6491	0.6478	0.6465	0.6452	0.6439	0.6426	0.6413	0.6400	0.6387	0.6374	0.6361	0.6348	0.6335	0.6322
28	-0.7333	0.5988	0.6577	0.6570	0.6563	0.6549	0.6536	0.6523	0.6510	0.6497	0.6484	0.6471	0.6458	0.6445	0.6432	0.6419	0.6406	0.6393	0.6380	0.6367	0.6354	0.6341
29	-0.7400	0.5999	0.6594	0.6587	0.6580	0.6566	0.6553	0.6540	0.6527	0.6514	0.6501	0.6488	0.6475	0.6462	0.6449	0.6436	0.6423	0.6410	0.6397	0.6384	0.6371	0.6358
30	-0.7459	0.6009	0.6609	0.6602	0.6595	0.6581	0.6568	0.6555	0.6542	0.6529	0.6516	0.6503	0.6490	0.6477	0.6464	0.6451	0.6438	0.6425	0.6412	0.6399	0.6386	0.6373
31	-0.7510	0.6018	0.6624	0.6617	0.6610	0.6596	0.6583	0.6570	0.6557	0.6544	0.6531	0.6518	0.6505	0.6492	0.6479	0.6466	0.6453	0.6440	0.6427	0.6414	0.6401	0.6388
32	-0.7554	0.6026	0.6638	0.6631	0.6624	0.6610	0.6597	0.6584	0.6571	0.6558	0.6545	0.6532	0.6519	0.6506	0.6493	0.6480	0.6467	0.6454	0.6441	0.6428	0.6415	0.6402
33	-0.7593	0.6033	0.6651	0.6644	0.6637	0.6623	0.6610	0.6597	0.6584	0.6571	0.6558	0.6545	0.6532	0.6519	0.6506	0.6493	0.6480	0.6467	0.6454	0.6441	0.6428	0.6415
34	-0.7628	0.6039	0.6664	0.6657	0.6650	0.6636	0.6623	0.6610	0.6597	0.6584	0.6571	0.6558	0.6545	0.6532	0.6519	0.6506	0.6493	0.6480	0.6467	0.6454	0.6441	0.6428
35	-0.7660	0.6045	0.6676	0.6669	0.6662	0.6648	0.6635	0.6622	0.6609	0.6596	0.6583	0.6570	0.6557	0.6544	0.6531	0.6518	0.6505	0.6492	0.6479	0.6466	0.6453	0.6440
36	-0.7689	0.6050	0.6688	0.6681	0.6674	0.6660	0.6647	0.6634	0.6621	0.6608	0.6595	0.6582	0.6569	0.6556	0.6543	0.6530	0.6517	0.6504	0.6491	0.6478	0.6465	0.6452
37	-0.7716	0.6055	0.6699	0.6692	0.6685	0.6671	0.6658	0.6645	0.6632	0.6619	0.6606	0.6593	0.6580	0.6567	0.6554	0.6541	0.6528	0.6515	0.6502	0.6489	0.6476	0.6463
38	-0.7742	0.6059	0.6710	0.6703	0.6696	0.6682	0.6669	0.6656	0.6643	0.6630	0.6617	0.6604	0.6591	0.6578	0.6565	0.6552	0.6539	0.6526	0.6513	0.6500	0.6487	0.6474
39	-0.7767	0.6063	0.6721	0.6714	0.6707	0.6693	0.6680	0.6667	0.6654	0.6641	0.6628	0.6615	0.6602	0.6589	0.6576	0.6563	0.6550	0.6537	0.6524	0.6511	0.6498	0.6485
40	-0.7791	0.6067	0.6732	0.6725	0.6718	0.6704	0.6691	0.6678	0.6665	0.6652	0.6639	0.6626	0.6613	0.6600	0.6587	0.6574	0.6561	0.6548	0.6535	0.6522	0.6509	0.6496
41	-0.7815	0.6070	0.6743	0.6736	0.6729	0.6715	0.6702	0.6689	0.6676	0.6663	0.6650	0.6637	0.6624	0.6611	0.6598	0.6585	0.6572	0.6559	0.6546	0.6533	0.6520	0.6507
42	-0.7838	0.6073	0.6754	0.6747	0.6740	0.6726	0.6713	0.6700	0.6687	0.6674	0.6661	0.6648	0.6635	0.6622	0.6609	0.6596	0.6583	0.6570	0.6557	0.6544	0.6531	0.6518
43	-0.7860	0.6076	0.6765	0.6758	0.6751	0.6737	0.6724	0.6711	0.6698	0.6685	0.6672	0.6659	0.6646	0.6633	0.6620	0.6607	0.6594	0.6581	0.6568	0.6555	0.6542	0.6529
44	-0.7882	0.6079	0.6776	0.6769	0.6762	0.6748	0.6735	0.6722	0.6709	0.6696	0.6683	0.6670	0.6657	0.6644	0.6631	0.6618	0.6605	0.6592	0.6579	0.6566	0.6553	0.6540
45	-0.7904	0.6082	0.6787	0.6780	0.6773	0.6759	0.6746	0.6733	0.6720	0.6707	0.6694	0.6681	0.6668	0.6655	0.6642	0.6629	0.6616	0.6603	0.6590	0.6577	0.6564	0.6551
46	-0.7926	0.6085	0.6798	0.6791	0.6784	0.6770	0.6757	0.6744	0.6731	0.6718	0.6705	0.6692	0.6679	0.6666	0.6653	0.6640	0.6627	0.6614	0.6601	0.6588	0.6575	0.6562
47	-0.7948	0.6088	0.6809	0.6802	0.6795	0.6781	0.6768	0.6755	0.6742	0.6729	0.6716	0.6703	0.6690	0.6677	0.6664	0.6651	0.6638	0.6625	0.6612	0.6599	0.6586	0.6573
48	-0.7969	0.6091	0.6820	0.6813	0.6806	0.6792	0.6779	0.6766	0.6753	0.6740	0.6727	0.6714	0.6701	0.6688	0.6675	0.6662	0.6649	0.6636	0.6623	0.6610	0.6597	0.6584
49	-0.7990	0.6094	0.6831	0.6824	0.6817	0.6803	0.6790	0.6777	0.6764	0.6751	0.6738	0.6725	0.6712	0.6699	0.6686	0.6673	0.6660	0.6647	0.6634	0.6621	0.6608	0.6595
50	-0.8011	0.6097	0.6842	0.6835	0.6828	0.6814	0.6801	0.6788	0.6775	0.6762	0.6749	0.6736	0.6723	0.6710	0.6697	0.6684	0.6671	0.6658	0.6645	0.6632	0.6619	0.6606
51	-0.8032	0.6100	0.6853	0.6846	0.6839	0.6825	0.6812	0.6799	0.6786	0.6773	0.6760	0.6747	0.6734	0.6721	0.6708	0.6695	0.6682	0.6669	0.6656	0.6643	0.6630	0.6617
52	-0.8053	0.6103	0.6864	0.6857	0.6850	0.6836	0.6823	0.6810	0.6797	0.6784	0.6771	0.6758	0.6745	0.6732	0.6719	0.6706	0.6693	0.6680	0.6667	0.6654	0.6641	0.6628
53	-0.8074	0.6106	0.6875	0.6868	0.6861	0.6847	0.6834	0.6821	0.6808	0.6795	0.6782	0.6769	0.6756	0.6743	0.6730	0.6717	0.6704	0.6691	0.6678	0.6665	0.6652	0.6639
54	-0.8095	0.6109	0.6886	0.6879	0.6872	0.6858	0.6845	0.6832	0.6819	0.6806	0.6793	0.6780	0.6767	0.6754	0.6741	0.6728	0.6715	0.6702	0.6689	0.6676	0.6663	0.6650
55	-0.8116	0.6112																				

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